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BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554

In the Matter of	)
	)
Application by SBC Communications Inc.,	)
Illinois Bell Telephone Company, d/b/a	) CC Docket No. _____
Ameritech Illinois, and Southwestern Bell	)
Communications Services, Inc. d/b/a	)
Ameritech Long Distance for Provision of	)
In-Region InterLATA Services in Illinois	)

STATE OF TEXAS	)
	)
COUNTY OF TARRANT	)

AFFIDAVIT OF W. C. DEERE
ON BEHALF OF AMERITECH

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NETWORK AFFIDAVIT

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I, WILLIAM C. DEERE, being of lawful age and duly sworn upon my oath, do hereby depose and state:

Professional Experience and Educational Background

1.   My name is William C. Deere. I am a consultant for SBC Operations ("SBC"). I have been hired as a consultant because of my involvement over the past several years in the 271 process in Arkansas, California, Oklahoma, Kansas, Missouri, Nevada and Texas. Before my retirement from Southwestern Bell Telephone Company ("SWBT") on December 12, 1999, I was SWBT's Executive Director-Planning and Engineering. In this capacity, I participated in the development, planning, and engineering of SWBT's telephone network within its five-state service area and California and Nevada. I also acted as the regulatory and legislative technical liaison in the states within SWBT's territory and California, Connecticut and Nevada. During my tenure, I testified before eight state regulatory commissions concerning the technical issues contained in this affidavit. Since my retirement, I have continued to review the development, planning and engineering of SBC's telecommunications network in the SWBT, Pacific Bell, Nevada Bell and Ameritech regions. I have participated in the 271 applications in Arkansas, California, Illinois, Kansas, Michigan, Missouri, Nevada, Oklahoma, Ohio and Wisconsin since my retirement.

2.   I hold a Bachelor of Science degree in Electrical Engineering degree from Southern Methodist University in Dallas, Texas. I am a Licensed Professional Engineer in Texas. I also have completed training courses conducted by the Bell System, AT&T (Lucent), Northern Telcom (Nortel), Ericsson, Bellcore (Telcordia) and SWBT on switching systems, transmission systems, and local network distribution systems.

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3.   SWBT hired me in 1961 as a Student Engineer. Until October 1969, I worked in the

central office and the PBX engineering groups of the Engineering Department. Then, I

was transferred to the Traffic Department, where I worked as the Manager-Switching

Design. Next I was assigned as the Traffic Manager-Network Design, where I supervised

the PBX design group for the north part of Texas until October 1978. I worked in St.

Louis for 18 months as the head of the Business Services staff and then returned to Dallas

as the Division Manager-Network Administration. In October 1984, I assumed the duties

of Division Staff Manager-Network Planning Staff. My title was changed to Division

Manager-Network Engineering (Customer Services) on October 1, 1986, as a result of a

reorganization of the SWBT Network Department. In October 1993, I became the

Regional Manager-Planning and Engineering and assumed responsibilities for the five

states served by SWBT. When California, Nevada and Connecticut were merged with

SBC, I assumed responsibility for these states. I continued in this position, with a title

change to Executive Director-Planning and Engineering, until my retirement on

December 12, 1999.

EXECUTIVE SUMMARY

4.   My affidavit demonstrates that Ameritech Illinois[1] ("Ameritech") allows non-

discriminatory access to its network in full compliance with the federal

Telecommunications Act of 1996 ("Act"), and the FCC's orders and accompanying rules

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1 Illinois Bell Telephone Company, an Illinois corporation, is a wholly owned subsidiary of Ameritech Corporation, which owns the former Bell operating companies in the states of Michigan, Illinois, Wisconsin, Indiana, and Ohio. Ameritech Corporation is a wholly owned subsidiary of SBC Communications Inc. Ameritech Corporation is a wholly subsidiary of SBC Communications Inc. Illinois Bell offers telecommunications services and operates under the names "Ameritech" and "Ameritech Illinois" pursuant to assumed name filings with the state of Illinois.

implementing those sections ("Rules").[2] My affidavit specifically discusses the network-related issues associated with the requirements imposed by the <u>UNE Remand Order</u>.[3] Ameritech offers these checklist items in approved interconnection agreements with various competitive local exchange carriers ("CLECs"), and in the Illinois 271 Amendment ("I2A"), which has been submitted with the affidavit of Mr. Scott Alexander ("Alexander Affidavit").

5.   Ameritech meets its obligations to offer collocation in the many different forms ordered by the FCC. Ameritech offers traditional physical and virtual collocation in Ameritech central offices. Ameritech also offers collocation in controlled environmental vaults, huts and cabinets. Ameritech offers collocation cages that are smaller than the traditional 10 foot x 10 foot cage (or 100 square foot cage.) (Level 3,[4] App. Collocation, Sec. 4.1.1.1) (Tariff,[5] Part 23, Sec. 4, Sh. 4 Para. C. 1. a.) Ameritech's collocation offering includes

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[2] <u>See</u> First Report and Order, <u>Implementation of the Local Competition Provisions in the Telecommunications Act of 1996; Interconnection between Local Exchange Carriers and Commercial Mobile Radio Service Providers</u>, 11 FCC Rcd 15,499 (1996) ("First Report and <u>Order</u>"); Second Report and Order and Memorandum Opinion and Order, <u>Implementation of the Local Competition Provisions of the Telecommunications Act of 1996; Interconnection Between Local Exchange Carriers and Commercial Mobile Radio Service Providers; Area Code Relief Plan for Dallas and Houston; Ordered by the Public Utility Commission of Texas; Administration of the North American Numbering Plan; Proposed 708 Relief Plan and 630 Numbering Plan Area Code by Ameritech-Illinois</u>, 11 FCC Rcd 19,392 (1996) ("<u>Second Report and Order</u>"); First Report and Order On Reconsideration, <u>Implementation of the Local Competition Provisions of the Telecommunications Act of 1996; Interconnection Between Local Exchange Carriers and Commercial Mobile Radio Service Providers</u>, 11 FCC Rcd 13,042 (1996) ("<u>First Reconsideration Order</u>"); Second Order on Reconsideration, <u>Implementation of the Local Competition Provisions in the Telecommunications Act of 1996; Interconnection between Local Exchange Carriers and Commercial Mobile Radio Service Providers</u>, 11 FCC Rcd 19,738 (1996) ("<u>Second Reconsideration Order</u>"); Third Order on Reconsideration, <u>Implementation of the Local Competition Provisions in the Telecommunications Act of 1996</u>, 12 FCC Rcd 12,460 (1997) ("<u>Third Reconsideration Order</u>"); First Report and Order and Further Notice of Proposed Rulemaking, <u>Deployment of Wireline Services Offering Advanced Telecommunications Capability</u>, 14 FCC Rcd 4761 (1999) ("<u>Advanced Services Order</u>"); Second Memorandum Opinion and Order on Reconsideration, <u>Telephone Number Portability</u>, 13 FCC Rcd 21,204 (1998) ("<u>First Report and Order on Number Portability</u>").
[3] Third Report and Order and Fourth Further Notice of Proposed Rulemaking, <u>Implementation of the Local Competition Provisions of the Telecommunications Act of 1996</u>, 15 FCC Rcd 3696 (1999) ("<u>UNE Remand Order</u>").
[4] Interconnection Agreement Under Sections 251 And 252 Of The Telecommunications Act Of 1996 by and among Illinois Bell Telephone Company, Indiana Bell Telephone Company Incorporated, Michigan Bell Telephone Company, Nevada Bell Telephone Company, The Ohio Bell Telephone Company, Pacific Bell Telephone Company, The Southern New England Telephone Company, Southwestern Bell Telephone Company, Wisconsin Bell, Inc. d/b/a Ameritech Wisconsin and Level 3 Communications, LLC ("Level 3").
[5] Ill. C.C. Tariff 20, Interconnection Services for Local Exchange Carriers.

cageless provisions in compliance with the FCC's <u>Advanced Services Order</u>. (Level 3, App. Collocation, Sec. 4.1.3) (Tariff, Part 23, Sec. 4, Sh. 4.1, Para. C. 1. b.) Ameritech also offers adjacent structure collocation in accordance with the FCC's <u>Advanced Services Reconsideration Order</u>. (Level 3, App. Collocation, Sec. 4.1.4) (Tariff, Part 23, Sec. 4, Sh. 8, Para. C. 1. d.)

6.   Ameritech meets its obligations to offer all UNEs ordered by the FCC and continues to offer those elements that are no longer UNEs but exist in current contracts. Ameritech provides access to the following UNEs:

- Local Loop (including sub-loops and the High Frequency Portion of the Loop ("HFPL"))

- Network Interface Device

- Local Switching Capability

- Tandem Switching Capability

- Packet Switching Capability (if required)

- Interoffice Transmission Facilities

- Signaling Networks and Call Related Databases

- Operator Services and Directory Assistance ("OS/DA")

- Operations Support Systems Functions

7.   Ameritech also offers all of the additional UNEs required by the <u>UNE Remand Order,</u> as implemented on February 17 and May 17, 2000. Ameritech offers the UNE sub-loop as well as dark fiber loop, sub-loop and interoffice transport facilities. In addition, Ameritech continues to provide access to call related databases, including, but not limited to, the Line Information database ("LIDB"), Toll Free Calling database, Number

Portability database, Calling Name ("CNAM") database, Operator Services/Directory

Assistance databases, and Advanced Intelligent Network ("AIN") databases. If the

conditions required by the FCC are met, Ameritech will also offer access to unbundled

packet switching. Ameritech continues to offer access to loop qualification data in full

compliance with the requirements of the UNE Remand Order.

8.   In addition to mandated UNEs, Ameritech accepts special requests for additional UNEs,

or modifications to existing UNEs, under the Bona Fide Request ("BFR") process

discussed below.

9.   Ameritech provides CLECs with the ability to access UNEs so that they, themselves, may

combine UNEs. Ameritech provides UNEs so that CLECs may combine UNEs with

other UNEs, or UNEs with their own equipment, in order to provide an end-to-end

telecommunications service. (Level 3, App. UNE, Sec. 3.1) If requested, Ameritech also

will combine UNEs for the CLECs as specified in the Illinois 271 Amendment ("I2A.")[6]

Ameritech also makes specific provisions to enable CLECs to combine UNEs themselves

using a secured frame option, as described in the Alexander Affidavit. (Level 3, App.

UNE, Sec. 3.1.1)

10.   Provisioning of the network elements is done in a nondiscriminatory manner. The

Ameritech network is built so that Ameritech is unable to discriminate in the provisioning

of UNEs or resold services without escaping detection. As I will describe below, it is

impossible for the parts of the network serving CLECs to be degraded without

Ameritech's customers being impacted. Ameritech's network elements that serve both its

retail customers and CLEC customers are not capable of discriminating between

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[6] Ameritech will also combine UNEs under other conditions, as discussed in the Alexander Affidavit.

Ameritech traffic and CLEC traffic. The same service parameters, intervals, standards, procedures, and practices are used to provide service for CLECs, Interexchange Carriers ("IXCs") and Ameritech retail services; any attempt to act in a contrary fashion would be detected by Ameritech's performance measures.

11. Performance measures that track Ameritech's implementation of each checklist item are discussed in the affidavit of James Ehr.

I. CHECKLIST ITEM (i): INTERCONNECTION

12. A Bell Operating Company ("BOC"), such as Ameritech, meets the requirements of checklist item (i) if it offers "interconnection in accordance with the requirements of sections 251(c)(2) and 252(d)(1)" of the Act, 47 U.S.C. § 271 (c)(2)(B)(i).

13. As discussed below, Ameritech's interconnection agreements fully satisfy this requirement.

Methods of Interconnection

14. Consistent with § 251(c)(2)(A) of the Act and FCC Rules, Ameritech provides interconnection with its network for the transmission and routing of telephone exchange traffic and/or exchange access traffic. 47 C.F.R. § 51.305(a)(1); First Report and Order, 11 FCC Rcd 15,594, ¶ 184. Ameritech currently permits interconnection using four alternatives and will provide other technically feasible alternatives. Ameritech offers: (1) Fiber-Meet Interconnection; (2) Physical Collocation Interconnection; (3) Virtual Collocation Interconnection; and (4) Leasing of Ameritech Facilities. (Level 3, App. NIM, Sec. 1.9 & 3.1-3.4)

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Fiber Meet

15.   A Fiber-Meet arrangement may be negotiated at any mutually agreeable, economically

and technically feasible point between a CLEC's premises and an Ameritech tandem or

end office. (Level 3, App. NIM, Sec. 3.4.1)

16.   A Fiber-Meet may be used to provide interconnection interoffice trunking for the purpose

of originating and terminating calls between a CLEC's switch and an Ameritech switch,

and for transit calls to or from a third party via Ameritech's tandem switch. 47 C.F.R. §

51.321(b). If a Fiber Meet is used to interconnect Ameritech's and the requesting

CLEC's networks, the parties jointly will engineer and operate a single point-to-point

linear chain system transmission system. (Level 3, App. NIM, Sec. 3.4.2) There are four

basic Fiber-Meet designs.

17.   In the first design, the CLEC's fiber cable and the Ameritech fiber cable are connected at

an economically and technically feasible point between the CLEC and Ameritech

locations. This Interconnection point would be at a mutually agreeable location

approximately midway between the two locations. The Point of Interconnection ("POI")

is at the fiber termination panel at the mid-point meet. (Level 3, App. NIM Sec.3.4.4.1)

18.   In the second design, a CLEC provides fiber cable to the last entrance manhole at the

Ameritech central office or tandem switch location, and provides sufficient length of

fiber optic cable for Ameritech to pull to the Ameritech cable vault for termination on the

Ameritech fiber distribution frame. Ameritech is responsible for designing, provisioning,

owning and maintaining all equipment and facilities on its side of the POI. Similarly, the

CLEC is responsible for the same functions on its side of the POI. Each carrier is free to

select the manufacturer of its Fiber Optic Terminal ("FOT"). In this case the POI shall be

at the Ameritech designated manhole location. (Level 3, App. NIM, Sec.3.4.4.2)

19.   In the third design, Ameritech provides fiber cable to the last entrance (or CLEC designated) manhole at the CLEC location. The CLEC makes all necessary preparations to allow and enable Ameritech to deliver fiber optic facilities into that manhole. Ameritech provides a sufficient length of cable for the CLEC to run the fiber cable from the manhole and terminate on the CLEC fiber distribution frame ("FDF") in the CLEC's location. Ameritech delivers and maintain such strands wholly at its own expense up to the POI. The CLEC takes the fiber from the manhole and terminates it inside the CLEC's office on the FDF at the CLEC's expense. In this case the POI shall be at the CLEC designated manhole location. (Level 3, App. NIM Sec. 3.4.4.3)

20.   Pursuant to design four, the CLEC and Ameritech each provide two fibers between their locations. This design may only be considered when existing fibers are available and there is a mutual benefit to both parties. Ameritech provides the fibers associated with the "working" side of the system. The CLEC provides the fibers associated with the "protection" side of the system. The companies work cooperatively to terminate each other's fiber in order to provision this joint point-to-point linear chain SONET system. The POI is defined as being at the Ameritech location. (Level 3, App. NIM, Sec. 3.4.4.4)

21.   For each of the aforementioned types of Fiber Meets the CLEC location will include fiber optic terminals, multiplexing equipment, and fiber required to receive the optical signal handoff from Ameritech for interconnection. (Level 3, App. NIM, Sec.3.4.5)

22.   The Ameritech central office or tandem switch locations contain all Ameritech fiber optic terminals, multiplexing, and fiber required to receive the optical signal hand-off provided by the CLEC for trunking. These locations are Ameritech's responsibility to provision

and maintain. (Level 3, App. NIM, Sec. 3.4.6)

23.   Any of the methods described above are available for interconnection at the trunk side of

the local switch, the trunk connection points of a tandem switch, central office cross-

connect points, out-of-band signaling transfer points, and points of access to unbundled

network elements. CLECs have the option of interconnecting at all of these points.   47

C.F.R. § 51.305(a)(2).

24.   The FCC Rules also require the availability of interconnection at the line-side of a local

switch. This is necessary if a CLEC owns distribution plant and seeks to interconnect

with an Ameritech central office switch. Interconnection would occur at the point of

access to a UNE; therefore, Ameritech provides access to the line side of the Ameritech

switch by offering the local switch UNE. (Level 3, App. UNE, Sec. 9.1.1) Ameritech

has not yet received any requests for this type of interconnection, but will make it

available upon request. 47 C.F.R. § 51.305(a)(2)(i).

Physical Collocation

25.   Where space permits, CLECs are permitted to arrange for physical collocation of

equipment in Ameritech buildings and structures to terminate cables on their own

equipment. In addition, where space is not available, Ameritech provides adjacent

collocation consistent with the FCC's <u>Advanced Services Reconsideration Order</u>. (Level

3, App. Collocation, Secs. 4.1 & 4.1.4) (Tariff, Part 23, Sec. 4, Sh. 8, Para. C. 1. d.)

Ameritech has developed methods and procedures for termination of copper and fiber

cables into a collocation space. (Level 3, App. Collocation) (Tariff, Part 23, Sec. 4)

Under these arrangements, the CLECs are able to install, operate, and maintain their

equipment within the collocation space. A CLEC may use these facilities for the same

purposes described in the discussion of Fiber-Meet arrangements. 47 U.S.C. § 251(c)(6) & 47 C.F.R. § 51.321(e); and § 51.323(a), (h), (i).

26.   The collocating CLEC may physically locate any equipment necessary for interconnection or access to unbundled network elements in Ameritech eligible structures.[7] 47 C.F.R. § 51.323(b). (Level 3, App. Collocation, Sec. 6.2) (Tariff, Part 23, Sec. 4, Sh. 1.2, Para. 10. a. 1) Pursuant to arbitrated and/or negotiated and stipulated agreements, a CLEC may collocate remote switching modules ("RSMs"). (TDS[8], App. Collocation, Sec. 6.5) Ameritech places no restrictions on the CLEC's use of collocated RSMs when the RSM is used only for the purpose of interconnection with the Ameritech network for the transmission and routing of telephone exchange service or exchange access or for access to the Ameritech unbundled network elements for the provision of a telecommunications service. 47 C.F.R. § 51.323(c). If the CLEC already has collocation space in an Ameritech central office for other purposes, it can use the spare capacity of that space for local exchange interconnection.

Virtual Collocation

27.   Ameritech provides traditional virtual collocation where it maintains and repairs virtually collocated equipment in central offices and other eligible structures. (Level 3, App. Collocation, Sec 10.1) (Tariff, Part 23, Sec. 4, Sh. 38, Para. 2. A.) Where space is available for collocation in Controlled Environmental Vaults ("CEVs"), huts and cabinets, and in central offices, Ameritech will maintain and repair the virtually collocated equipment. With either physical collocation or virtual collocation, Ameritech provides an interconnection point or points, physically accessible by both Ameritech and

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[7] See GTE Service Corp. v. FCC, 205 F.3d 416, 422 (D.C. Cir. 2000).
[8] Interconnection Agreement between Ameritech-Illinois and TDS MetroComm. ("TDS")

the requesting CLEC, at which the fiber optic cables carrying the CLEC's circuits enter

Ameritech's premises. (Level 3, App, Collocation, Sec. 9.3) 47 C.F.R. § 51.323(d)(1).

28.   Ameritech provides separate points of entry into an eligible structure in which the

dedicated space is located wherever there are at least two entry points for Ameritech

cable and at which space is available for new facilities in at least two of those entry

points. (Level 3, App. Collocation, Sec. 9.3) Where such dual points of entry are not

immediately available, Ameritech will perform work as is necessary to make available

such separate points of entry for the collocator at the same time that it makes such

separate points of entry available for itself.

29.   The facilities that are collocated in Ameritech premises must be necessary for accessing

Ameritech's UNEs, for interconnection, provisioning of exchange access or

interexchange access.[9] 47 C.F.R. § 51.323(g). (Level 3, App. Collocation, Sec. 6.2)

(Tariff, Part 23, Sec. 4, Sh. 1.2, Para. 10. a. 1.)

Leased Facilities

30.   If a CLEC has no cable facilities available for interconnection, it can lease DS1 or DS3

special access facilities from Ameritech.   47 C.F.R. § 51.323(g). (Level 3, App. NIM,

Secs. 1.9 and 3.3)

Other Methods of Interconnection

31.   Ameritech and a CLEC may mutually agree to use another interconnection method when

it is determined to be technically feasible. (Level 3, App. NIM, Sec. 1.9); (Tariff, Part

19, Sec. 1, Sh. 3, Para. 1. A.)

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[9] Id.

32.   A CLEC has the option of interconnecting at only one point within a LATA.[10] (Level 3,

App. NIM, Sec. 2.2.1) (Telicor[11], App. NIM, Sec. 2.1 and 2.2)

Interconnection Summary

33.   The access Ameritech provides to points of interconnection is equal in quality (as defined

by 47 C.F.R. § 51.331) to that which Ameritech provides to itself, except where a CLEC

requests otherwise. Such access meets the same technical criteria and standards used in

Ameritech's network for comparable arrangements. 47 U.S.C. § 251(c)(2)(C); 47 C.F.R.

§ 51.305(a)(3)(4).

34.   The service arrangements described above fulfill Ameritech's obligations under Section

271(c)(2)(B)(i) and 251(c)(2)(B) and (C) to interconnect with other carriers at a level of

quality that is at least equal to that which Ameritech provides itself. Interconnection is

provided at all economically and technically feasible points, using all methods available,

under nondiscriminatory and reasonable terms and conditions, and at the same level of

quality that Ameritech provides comparable interconnection to itself and its affiliates. 47

U.S.C. § 251(c)(2)(C) & (D). These equal-quality interconnections are achieved through

the use of the same facilities, interfaces, technical criteria and service levels that

Ameritech provides to its own retail operations.

Trunking Arrangements

35.   Ameritech allows a CLEC to use physical facilities obtained from Ameritech (e.g.,

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[10] As ordered by the Illinois Commerce Commission in Docket No. 00-0332, in Ameritech territory, a CLEC shall initially establish a single POI at any technically feasible point in each LATA in which CLEC offers local exchange service. The CLEC shall establish an additional POI in a LATA once the traffic exchanged between the CLEC and Ameritech with respect to that Tandem exceeds an OC-12 level (*i.e.*, 8064 simultaneous calls).

[11] Interconnection Agreement Under Sections 251 And 252 of The Telecommunications Act Of 1996 Between One or More of Illinois Bell Telephone Company, Indiana Bell Telephone Company Incorporated, Michigan Bell Telephone Company, Nevada Bell Telephone Company, The Ohio Bell Telephone Company, Pacific Bell Telephone Company, The Southern New England Telephone Company, Southwestern Bell Telephone Company,

dedicated transport access facilities or dedicated transport UNE facilities) to provision

trunk groups for local, IntraLATA and InterLATA traffic between a CLEC switch and an

Ameritech tandem or end office switch, provided such traffic is not solely for the purpose

of avoiding access charges and facility charges associated with dedicated transport used

to carry interLATA and intraLATA traffic originated by or terminated to a customer who

is not the CLEC's local exchange service customer. (Level 3, App. ITR, Sec. 3.2)

36. The Heritage Affidavit discusses the number of each type of trunk currently being

provided by Ameritech in Illinois. The James Ehr Affidavit discusses the performance

measurements used by Ameritech to ensure that these interconnection trunks are provided

at a level of quality that is equal to that which Ameritech provides for itself and other

parties.

37. Where Ameritech has a combined local tandem and access tandem in a LATA,

IntraLATA Toll and Local traffic shall be combined on a single Local Interconnection

Trunk group for calls destined to or from all end offices that subtend the tandem. This

trunk group may be two-way and will utilize Signaling System 7 (SS7) signaling. (Level

3, App. ITR, Sec. 5.3.1)

38. InterLATA traffic shall be transported between a CLEC switch and the Ameritech Access

or combined local/Access Tandem over a "meet point" trunk group separate from local

and IntraLATA toll traffic. The InterLATA trunk group will be established for the

transmission and routing of exchange access traffic between a CLEC's end users and

interexchange carriers via an Ameritech Access Tandem. (Level 3, App. ITR, Sec. 5.4.1)

39. Where CLECs choose to interconnect directly to an Ameritech end office, local traffic

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Wisconsin Bell, Inc. D/B/A Ameritech Wisconsin and Telicor, Inc.   (" Telicor")

may terminate over a direct trunk group to the end office. Direct trunk group(s) to Ameritech end offices may be provisioned as two-way and used as two-way. (Level 3, App. ITR, Sec. 4.4) However, intraLATA toll traffic that must be routed to a tandem is provided over a separate trunk group to the Ameritech access tandem.

40. Ameritech allows interLATA traffic to be transported between the CLEC central office and the Ameritech access tandem over a "meet point" trunk group that is separate from local and intraLATA toll traffic. This trunk group will be established for the transmission and routing of Exchange Access traffic between a CLEC's end users and interexchange carriers via an Ameritech access tandem. When Ameritech has more than one access tandem in a local exchange area or LATA, a CLEC must establish an InterLATA trunk group to each Ameritech access tandem where the CLEC has homed its NXX code(s). If the access tandems are in two different states, the CLEC must establish an InterLATA trunk group with one access tandem in each state. 47 C.F.R. § 51.305(f). (Level 3, App. ITR, Secs. 5.4.1 and 5.4.3)

41. If the CLEC chooses to provide such services, additional trunk groups may be established for services such as 800 (888, 877, 866, [or 855, 844, 833, 822 when available]), E911, Mass Calling or Public Response Choke Networks, and Operator Services access. (Level 3, App. ITR, Secs. 5.5, 5.6, 5.7, & 5.8)

Trunk Forecasting and Servicing

42. All trunk forecasting and servicing for the local and intraLATA toll trunk groups is based upon the same industry standard objectives that Ameritech uses for its own trunk groups. The standard objective of 2% overall blocking during the time-consistent average busy hour in the busy season consists of 1% blocking from the end office to the tandem and

1% blocking from the tandem to the end office, based on industry standard Neil

Wilkinson Trunk Group Capacity algorithms using B.01M (Medium Day-to-Day

Variation) until actual traffic data is available.[12] (Level 3, App. ITR, Sec. 7.1)

43.   Ameritech's forecasting process is designed to determine the amount of traffic that will

be handled by each central office and the number of trunks that will be required to carry

that traffic during the forecast period (normally five years out). Ameritech's Preliminary

General Trunk Forecast ("PGTF") is maintained daily. On May 1st and November 1st, the

PGTF is published as the General Trunk Forecast ("GTF"). Ameritech's engineering and

provisioning organizations use the GTF to appropriately size the network. (Level 3, App.

ITR, Sec. 6.1)

44.   According to the requirements described in Accessible Letter CLECAM00-047[13], CLECs

are requested to provide detailed forecast information in a specified format by January 1

and July 1 of each year. These forecasts are necessary to incorporate the CLEC's

requirements into the GTF. Forecasts are received by the Account Team Staff and

distributed to Trunk Planning and Engineering ("TP&E"), which tabulates the individual

forecasts into aggregate totals by central office. Ameritech also has agreed to accept

quarterly forecasts from any CLEC, and this agreement was communicated to the CLECs

through Accessible Letter CLECAM00-007.

45.   When preparing the GTF, Ameritech looks at the number of trunks currently in service.

Ameritech, using a Bellcore (Telcordia) system, then calculates a growth factor (i.e., the

percentage of growth expected over the next forecast period) based on traffic usage data

from the previous four quarters, as well as anticipated growth in traffic that may be

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[12] The Arbitration Decision on Issue 32 of ICC Docket 00-0332 (the Level 3-Ameritech arbitration) approved this

generated by new services. This data is measured using "busy hour" information,
measured and gathered using a Bellcore (Telcordia) system (Trunk Servicing
System/Trunk Forecasting System) that conforms to national industry standards.
Ameritech also adjusts for planned network rearrangements, such as switch replacements,
relocations or additions. The growth factor is then applied to the trunks currently in
service.

46.   Whenever traffic currently being carried by a single trunk group is split into separate
groups, inefficiencies are created. In other words, more trunks are required to carry
basically the same amount of traffic. Also, as CLECs enter new central offices, the
transitioning of traffic requires more trunks than would normally carry the traffic in
question. The CLEC forecast identifies locations and estimated quantities that are used in
developing factors to account for these inefficiencies and transitional effects in the
network. After the growth factor is applied to the trunks in service, these transitional and
inefficiency factors (as well as the effect of new features and service offerings) are
applied. After these adjustments for growth, inefficiency and transitional factors are
taken into account, Ameritech's final forecast is published as the GTF. (Level 3, App.
ITR, Sec. 6.1)

47.   Once the forecast is completed, Ameritech compares its results to the CLEC forecast. If
any serious discrepancies are discovered, Ameritech will contact the CLEC to review the
results and to discuss the forecast. (Level 3, App. ITR, Secs. 6.2.3 & 6.5) During this
discussion, Ameritech may make suggestions or recommendations for adjustments to the
CLEC forecast based on information such as traffic studies and other known factors

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level of blocking.
[13] Accessible Letters may be viewed or printed from the SBC CLEC Online Web Site <https://clec.sbc.com>.

concerning the market area. Under no circumstances does Ameritech require the CLECs

to change their individual forecasts. Although some CLECs have changed their forecasts

based on Ameritech's recommendations, others have not. The decision of how many

trunks to forecast, and where, is always at the discretion of the CLEC.

48.   There were 35 CLECs planning to operate in 83 Illinois markets by the end of year 2000.

Ameritech received forecasts from 19 of these CLECs, which included 36 of the 83

markets. The 36 CLEC market forecasts projected the need for 601,014 trunks for year-

end 2000. Ameritech forecasted a need for 341,738 interconnection trunks for all 83

CLEC markets. The actual requirement for all 83 CLEC markets was 336,236 trunks.

Ameritech's forecast was within 1.6% of its actual requirements, and the 19 CLECs'

(who provided forecasts for only 36 of the 83 markets) forecasts exceeded the

requirements of all 83 CLECs markets by 79%.

49.   The CLECs are responsible for forecasting, monitoring and servicing all two-way trunk

groups between the respective networks. Ameritech is responsible for forecasting,

monitoring and servicing the one-way trunk groups terminating to CLECs. CLECs are

responsible for forecasting, monitoring and servicing the one-way trunk groups to

Ameritech, including terminating, transit, operator services, directory assistance and

E911 trunks. Standard trunk traffic engineering methods are used as described in Bell

Communications Research, Inc. (Bellcore) document SR-TAP-000191, Trunk Traffic

Engineering Concepts and Applications, or as otherwise mutually agreed to by the

Parties. (Level 3, App. ITR, Sec. 6.4)

50.   Upon request, Ameritech meets with CLECs to discuss trunk forecasting, facility

shortages, and other topics related to providing adequate trunking in the local network.

In addition, Ameritech holds joint planning meetings to discuss trunking issues, central office rearrangements, trunk forecasting and other interconnection subjects requested by the CLECs. Trunk relief methodologies and the triggers for such relief related to tandems and end offices may be discussed during joint planning meetings. Additional items for discussion may include issues of underutilized trunks, forecasting of demand and migration of trunks from tandems to end offices. Ameritech's Trunk Group Service Request ("TGSR") process notifies CLECs on a daily basis when trunks are nearing or at capacity. (Level 3, App. ITR, Sec. 8.3.1)

51. For each local and tandem switch in Ameritech's network, Ameritech's switching capacity managers, located in the Network Engineering organization, use mechanized tools to track the installed capacity of trunk terminations versus actual and projected demand for trunk terminations. Actual demand for working trunk terminations generally is updated in these tools each month. Forecasted demand for the current year and future years is updated as needed but generally no less than twice each year. This tracking information provides past and future trunk utilization data for each switch.

52. Using this mechanized tracking information, the capacity managers monitor past trends in trunk utilization and the projections for future trunk utilization. The capacity managers are also aware of any special trunking conversions associated with each switch that might be reflected in the past usage data for that switch. Such conversions can somewhat inflate past usage trends when a trunk is simultaneously assigned to two trunk terminations in the switch (i.e., the pre-conversion termination and the post-conversion termination).

53. Using these past and projected utilization trends for each switch, along with the

knowledge of other activity associated with the switch, the capacity managers can

determine the projected exhaust of trunk terminations in the switch. With this

knowledge, the capacity managers are able to schedule the addition of trunk terminations

for the switch.

54.   For most local switches, the capacity managers generally schedule additions of trunk

terminations to be completed by the time the currently installed trunk capacity reaches

97% utilization.

55.   Some specific local switches have been identified as candidates for trunk relief when the

installed trunk capacity reaches 90-percent utilization. Candidate offices are those offices

that meet the following criteria:

- Non-tandem digital switches

- Switches with 100 trunking DS1s currently installed

- Switches with growth of at least 75 trunking DS1s per year

Those offices that are candidates for relief at 90-percent are larger offices typically serving

business customers, and likely to have high CLEC usage.

56.   For tandem switches, the capacity managers schedule additions of trunk terminations to

be completed by the time the currently installed trunk capacity reaches 95% utilization.

57.   Ameritech's target utilization percentages for the addition of trunk terminations in local

and tandem switches are intended to allow Ameritech to augment its network in an

orderly, efficient, and economical manner.

58.   When trunk terminations are added to a switch, the quantity of trunks added typically is

intended to serve growth for the 12 to 24 months following the completion of the

addition. This period is referred to as the "engineering interval" for the addition.

59.   As stated above, an addition of trunk terminations is scheduled to complete when the

switch has reached its targeted trunk utilization percentage. In other words, Ameritech

does not wait until that utilization percentage has been reached before triggering the

addition. Once the capacity manager has determined the anticipated target exhaust date

for a switch, the capacity manager subtracts an appropriate amount of time from that

exhaust date to allow for the addition to be engineered, manufactured, shipped, and

installed in the switch. Thus, the addition of trunk terminations is initiated by Ameritech

well in advance of the targeted exhaust date.

60.   Ameritech's Network Engineering organization determines when to place an order for

additional trunk terminations in a switch based upon past usage trends, forecasted usage,

knowledge of activity occurring in the switch, a targeted percent-fill upon completion of

the addition and the interval required to design, obtain and install the addition.

61.   The overall interval required to design, obtain, and install an addition of trunk

terminations in an existing local or tandem switch is typically between six and 12

months. However, when the total capacity of an existing switch (such as the capacity for

trunk terminations or call volumes) becomes exhausted, and a new switch must be added

to Ameritech's network, the capacity managers generally notify the switch planners 36

months in advance of a tandem switch exhaust and 24 months in advance of a local

switch exhaust.

62.   Trunking is provided in accordance with the terms and conditions of Level 3's

interconnection agreement, Appendix: Interconnection Trunking Requirements ("ITR")

or similar sections of negotiated or arbitrated agreements.

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Performance Measures

63.   The following Performance Measures are related to interconnection trunking:

- PM 70 - Percentage of Trunk blockage

- PM 70.1 – Trunk Blocking Exclusions

- PM 70.2 – Percentage of Trunk Blockage (Trunk Groups)

- PM 71 - Common Transport Trunk Blockage

- PM 72 - Distribution of Common Transport Trunk Groups > 2%

- PM 73 - Percentage Missed Due Dates – Interconnection Trunks

- PM 74 - Average Delay Days for Missed Due Dates – Interconnection Trunks

- PM 75 - Percentage Ameritech Caused Missed Due Dates > 30 Days –
  Interconnection Trunks

- PM 76 - Average Trunk Restoral Interval – Interconnection Trunks

- PM 77 - Average Trunk Restoral Interval for Service Affecting Trunk Groups

- PM 78 - Average Interconnection Trunk Installation Interval

- PM 65 - Trouble Report Rate

- PM 69 - Percent Repeat Reports

II. CHECKLIST ITEM (ii): NONDISCRIMINATORY ACCESS TO NETWORK ELEMENTS

General Unbundling Rules

64.   A BOC, such as Ameritech, meets the requirements of Checklist Item (ii), if it offers

"[n]ondiscriminatory access to network elements in accordance with the requirements of

sections 251(c)(3) and 252(d)(l)." 47 U.S.C. § 271(c)(2)(B)(ii).

65.   As detailed below, Ameritech's interconnection agreements fully satisfy this requirement.

66. In its <u>First Report and Order</u>, the FCC identified a minimum list of network elements that must be provided on an unbundled basis. These included unbundled access to local loops, network interface devices, local and tandem switching capability, interoffice transmission facilities, signaling and call-related databases, operations support systems ("OSS") functions, and operator services ("OS") and directory assistance ("DA") facilities. The United States Supreme Court subsequently required the Commission to reconsider its list. In its <u>UNE Remand Order</u> the FCC subsequently modified its list to exclude OS and DA facilities (except in limited circumstances) and to add the following: 1) subloop elements; 2) dark fiber in loop and interoffice transport; 3) packet switching under certain circumstances: and 4) certain call-related databases. Each of these elements are provided by Ameritech in Illinois as discussed below.

67. Ameritech provides requesting CLECs with nondiscriminatory, unbundled access to network elements for use in providing telecommunications services to their customers. Access to network elements is provided on a nondiscriminatory and equal-in-quality basis under the same terms and conditions to all CLECs. Each of these requirements is discussed below. Information on the quantity of UNEs currently provided to CLECs in Ameritech's Illinois service area is discussed in the Heritage Affidavit.

68. As required by 47 C.F.R. § 51.307, Ameritech provides requesting CLEC's with nondiscriminatory access to network elements on an unbundled basis at any technically feasible point which is at least equal in quality to the access Ameritech provides to itself. Ameritech provides the CLEC with access to all the features, functions, and capabilities of the network elements in a manner that allows the CLEC to provide telecommunications services that the network element is capable of providing, consistent with legal requirements. 47 C.F.R. § 51.307(a), (c). (Level 3, App. UNE, Secs. 2.2.1 –

2.2.9 & 2.5)

69.   For a separate charge, Ameritech also provides CLECs with access to the facilities or

        functionality of network elements separately from access to other network elements. 47

        C.F.R. § 51.307(d). (Level 3, App. UNE, Sec. 2.2.4)

70.   Ameritech provides CLECs access to UNEs to permit CLECs to combine such network

        elements with other network elements obtained from Ameritech (or with network

        components provided by the CLEC itself) to provide telecommunications services to its

        customers, provided that such a combination is technically feasible and would not impair

        the ability of other carriers to obtain access to other UNEs or to interconnect with

        Ameritech's network. A discussion of how CLECs are able to access the UNEs in order

        to combine them begins at paragraph 208 of this affidavit. 47 C.F.R. § 51.309(a); (Level

        3, App. UNE, Sec. 3)

71.   Ameritech permits a CLEC to purchase UNEs in order to provide exchange access

        service to itself in order to provide interstate and intrastate, interexchange services to its

        customers, subject to the applicable charges. 47 C.F.R. § 51.309(b). (Level 3, App.

        UNE, Sec. 2.2.7)

72.   Requesting CLECs are entitled to exclusive use of an unbundled network facility, and to

        the use of its features, functions, or capabilities, for a set period of time. 47 C.F.R. §

        51.309(c). However, Ameritech retains ownership of the facility and retains the

        obligation to maintain, repair or replace UNEs as necessary. Each network element

        provided by Ameritech meets applicable regulatory performance standards and is at least

        equal in quality and performance to that which Ameritech provides to itself. 47 C.F.R. §

        51.311(a), (b). (Level 3, App. UNE, Sec. 2.3, 2.4, 2.5 & 2.7)

73.   The terms and conditions pursuant to which Ameritech provides access to UNEs are

offered equally to all requesting CLECs. 47 C.F.R. § 51.313(a). In addition, as discussed

in the Alexander Affidavit, the "most favored nation" ("MFN") clause in Ameritech's

interconnection agreements, coupled with the provisions of 47 USC § 252(i), allow any

CLEC to adopt terms, conditions and prices of another CLEC's contract.

Unbundled Network Elements ("UNEs")

74.   Consistent with its contractual commitments, Ameritech makes available

nondiscriminatory access to the following core UNEs:

- Local Loop, including Sub-loops and High Frequency Portion of the Loop

- Network Interface Device ("NID")

- Local Switching Capability

- Tandem Switching Capability

- Interoffice Transmission Facilities

- Signaling Networks and Call-Related Databases

- Operations Support Systems ("OSS") Functions

47 C.F.R. § 51.319 (a)-(g); (Level 3, App. UNE, Sec. 6.0 thru 13.0)[14]

75.   Most of the minimum set of network elements are separately required by the checklist

and therefore are discussed in later sections of my affidavit. However, the NID is

discussed in this section. Access to OSS Functions is discussed in detail in the Cottrell

Affidavit. Ameritech's offerings of OS/DA services, which Ameritech continues to offer

to CLECs, are set out in Section 6 of Appendix Resale of the interconnection agreements,

such as Level 3's, and in Appendix DA and Appendix OS of those interconnection

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[14] In addition, Operator Services and Directory Assistance are offered as UNEs via tariff. (Tariff 20, Part 19, Sec. 7

agreements, and are detailed in the Jan Rogers Affidavit.

Network Interface Device

76.   The NID is defined as any means of interconnection of end-user customer premises

wiring to Ameritech's distribution loop facilities, such as a cross connect device used for

that purpose. The NID contains the appropriate and accessible connection points or posts

to which the service provider and the end-user customer each make their connections.

(Level 3, App. UNE, Sec. 6.1)

77.   When a CLEC provides its own loop facilities, the CLEC provides its own NID and

interfaces to the customer's premise wiring through connections in the customer chamber

of the Ameritech NID. 47 C.F.R. § 51.319(b). (Level 3, App. UNE, Sec. 6.2) (Tariff,

Part 19, Sec. 2, Sh. 18, Para 2.4)

78.   CLECs may connect to the customer's inside wire at the Ameritech NID, as is, at no

charge. Any repair, upgrades, disconnects, or rearrangements required by the CLEC are

performed by Ameritech based on time and material charges. (Level 3, App. UNE, Sec.

6.3)

79.   When a CLEC obtains local loops as a UNE from Ameritech, Ameritech also provides

the NID. (Tariff, Part 19, Sec. 2, Sh. 22, Para 3.1) Ameritech connects the drop wire

between the distribution plant facilities and the NID at no additional charge to the CLEC.

80.   At multiple dwelling units or multiple-unit business premises, the CLEC may provide its

own NID, and connect directly with the end user's premises wire, or the CLEC may

connect with the end user's premises wire via Ameritech's NID where necessary. (Level

3, App. UNE, Sec. 6.4)

and Sec. 8)

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81. As a result of discussions with the CLECs in collaboratives[15] and the Ameritech CLEC

User Forum, Ameritech has agreed to the following procedures for moving internal NIDs

outdoors as described below. These procedures were introduced in a January 23, 2001

Accessible Letter CLECAM01-016. Ameritech will move an internal "protector" or

"station block" (which are defined as a grandfathered demarcation point that contains a

non-jacked end (RJ11 or RJ21) type device) to an external location with a RJ-type device

at no charge to the CLEC. Ameritech will perform such work, if it makes a customer

premise visit for any reason (other than a CLEC work order discussed below. The

protector or station block will be replaced with an RJ-jacked type device on an external

location and Ameritech will reconnect the new device to the customer's existing inside

wire. This work will be performed at no charge. Ameritech will move a working internal

NID to an external location at Ameritech's existing time and material charges on a

nondiscriminatory basis for retail and wholesale customers if the CLEC places an order

for such work. Ameritech waived such charges for CLEC-requested NID moves until

July 31, 2001.

82. The following Performance Measures are related to NIDs:

- PM WI 3 – Installation Trouble Reports on Field Visit Orders to Move NID
- CLEC-W5 – Percentage of Protectors Not Moved After Technician Visit

Network Element Bona Fide Request or "BFR"

83. Upon request, Ameritech provides new UNEs, or modifications to previously identified

network elements, to the extent technically feasible and consistent with the Act's

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[15] The collaboratives resulted from issues raised in Wisconsin in Docket 6720-TI-160. The agreements from this process were accepted in Ohio Case No. U-12320, Ohio Case No. 00-942-TP-COI, Indiana Cause No. 41657 and the Michigan Joint Progress Report, filed on 12-27-00.

requirements. The process to be used for developing the requested arrangement is called the Bona Fide Request ("BFR") process. (Level 3, App UNE, Sec. 5.2.1)

84.   A Network Element BFR is to be submitted by the CLEC in writing and should include a technical description of each requested network element, the date when interconnection is requested, and the projected quantity of interconnection points ordered with a demand forecast. (Level 3, App. UNE, Sec. 5.2.3) Within ten (10) Business Days of its receipt Ameritech will acknowledge receipt of the BFR and in such acknowledgement advise the CLEC of the need for any additional information needed to process the request. (Level 3, App. UNE, Sec. 5.2.7)

85.   Except under extraordinary circumstances, within thirty (30) calendar days of its receipt of a complete and accurate BFR, Ameritech will provide a preliminary analysis confirming that Ameritech will offer access to the network element or explain in detail that access to the element is not technically feasible and/or that the request does not qualify as a network element that is required to be provided under the Act. (Level 3, App. UNE, Sec. 5.2.8)

86.   If Ameritech confirms that it will make the network element available and the CLEC authorizes further development, Ameritech will negotiate a schedule for arriving at a price and implementation terms (which generally will not extend beyond 90 days from Ameritech's receipt of the request). (Level 3, App. UNE, Sec. 5.2.10) At a minimum, Ameritech's Network Element BFR quote will include (i) the first date of availability, (ii) installation intervals, (iii) applicable rates (recurring, nonrecurring and other), (iv) BFR development and processing costs and (v) terms and conditions by which the Request shall be made available. (Level 3, App. UNE, Sec. 5.2.9)

87. The following Performance Measures are related to the BFR process:

   - PM 120 – Percentage of Request Processed within 30 Business Days

   - PM 121 – Percentage of Quotes Provided for Authorized BFRs Within 45 Business Days

III. CHECKLIST ITEM (iv): LOCAL LOOP

88. A BOC, such as Ameritech, meets the requirements of checklist item (iv) if it offers access to "local loop transmission from the central office to the customer's premises, unbundled from local switching or other services." 47 U.S.C. § 271(c)(2)(B)(iv).

89. Ameritech complies with the requirements of this checklist item. Ameritech offers subloop elements, dark fiber, and the High Frequency Portion of the Loop in accordance with the FCC's <u>UNE Remand Order</u> and the <u>Line Sharing Order</u>.

90. The local loop network element is defined as a dedicated transmission facility between a distribution frame (or its equivalent) in an Ameritech central office and the loop demarcation point at an end user's premises. Where applicable, the local loop includes all wire within multiple dwelling and tenant buildings and campuses that provides access to customer premises wiring, provided such wiring is owned and controlled by Ameritech. The local loop network element includes all features, functions and capabilities of the transmission facility, including dark fiber and attached electronics (except those electronics used for the provision of advanced services, such as Digital Subscriber Line Access Multiplexers), and line conditioning. The local loop includes, but is not limited to DS1, DS3, fiber, and other high capacity loops to the extent required by applicable law. 47 C.F.R. § 51.319(a). (Level 3, App. UNE, Sec. 7.1) (Tariff, Part

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19, Sec. 2)

91. Ameritech provides the following standard local loops as network elements unbundled from local switching or other services:

- 2-Wire analog loop supporting analog voice frequency, with no more than 8 dB loss (Level 3, App. UNE, Sec. 7.2.1) ((Tariff, Part 19, Sec. 2, Sh. 22, Para 3.2 A))

- An Electronic Key Line Interface Loop (EKL) facilitates transmission of voice grade signals and also provides for the transmission of additional information in the 8 Khz range and terminates in a 2-wire electrical interface at the telecommunications carrier's end user's premises and a 2-wire electrical interface at the Company central office frame. (Tariff, Part 19, Sec. 2, Sh. 22, Para 3.2 C)

- 4-Wire analog loop (Level 3, App. UNE, Sec. 7.2.2) (Tariff, Part 19, Sec. 2, Sh. 22, Para 3.2 B)

- 2-Wire digital loop (160 Kilobits per second) to support Basic Rate ISDN based services (Level 3, App. UNE, Sec. 7.2.3)   (Tariff, Part 19, Sec. 2, Sh. 23, Para 3.3 A)

- 4-Wire digital loop (1.544 Megabits per second) to support DS1 services, including Primary Rate ISDN services. (Level 3, App, UNE, Sec. 7.2.4) (Tariff, Part 19, Sec. 2, Sh. 23, Para 3.3 B)

- 2-wire 640 Kbps ADSL Compatible Loop facilitates transmission of digital signals and terminates in a 2-wire electrical interface at both the telecommunications carrier's end user's premises and the frame in the Company central office. (Tariff, Part 19, Sec. 2, Sh. 23, Para 3.3 C)

- 2-wire 768 Kbps HDSL Compatible Loop facilitates transmission of digital signals and terminates in a 2-wire electrical interface at both the telecommunications carrier's end user's premises and the frame in the Company central office. (Tariff, Part 19, Sec. 2, Sh. 23, Para 3.3 D)

- A 4-wire 1.544 Mbps HDSL Compatible Loop facilitates transmission of digital signals at 1.544 Mbps and terminates in a 4-wire electrical interface at both the

telecommunications carrier's end user's premises and the frame in the Company

central office. (Tariff, Part 19, Sec. 2, Sh. 23, Para 3.3 E)

- DS3 digital loop: The DS3 loop provides a digital, 45 Mbps transmission facility from the Ameritech Central Office to the end user premises. (Level 3, App. UNE, Sec. 7.2.5) 47 U.S.C. § 271(c)(2)(b)(iv).

92. Ameritech also offers options on the 2-wire analog loop including: a conditioning option to reduce loss to no more than 5dB; ground start operation for PBX trunks; and coin telephone options. (Tariff, Part 19, Sec. 2, Sh. 1, Para 1.4) In addition, a CLEC may request and, to the extent technically feasible, Ameritech will provide additional loop types and additional types of conditioning pursuant to the BFR process. Ameritech also provides DSL loops as discussed below.

93. Ameritech offers cross-connections with each type of unbundled loop. These include a cross-connect to collocation. (Level 3, App. UNE, Sec. 14)

94. Information concerning the number of loops provided to CLECs in Illinois is contained in the Heritage Affidavit.

Subloop Elements

95. Ameritech provides subloops as unbundled network elements in the following manner.

96. A subloop unbundled network element is an existing spare portion of the loop that can be accessed at accessible points on the loop. An accessible point on the loop is where technicians can access the copper wire or fiber within the cable without removing a splice case to reach the wire or fiber within. This includes any technically feasible point near the customer premises, such as the pole or pedestal, the NID or minimum point of entry to the customer premises, the feeder distribution interface, the Main Distribution Frame, remote terminals and various terminals. (TDS, App. UNE, Sec 7.27)

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97.   Ameritech offers the following types of subloop elements:

- 2-Wire Analog Subloop that provides a 2-wire (one twisted pair cable or equivalent) capable of transporting analog signals in the frequency range of approximately 300 to 3000 hertz (voiceband). (TDS, App. UNE, Sec 7.2.7.8)

- 4-Wire Analog Subloop that provides a 4-wire (two twisted pair cables or equivalent, with separate transmit and receive paths) capable of transporting analog signals in the frequency range of approximately 300 to 3000 hertz (voiceband). (TDS, App. UNE, Sec 7.2.7.8)

- 4-Wire DS1 Subloop that provides a transmission path capable of supporting a 1.544 Mbps service that utilizes AMI or B8ZS line code modulation. (TDS, App. UNE, Sec 7.2.7.8)

- DS3 Subloop that provides DS3 service from the central office MDF to an Interconnection Panel at the RT. The loop facility used to transport the DS3 signal will be a fiber optical facility. (TDS, App. UNE, Sec 7.2.7.8)

- 2-Wire / 4-Wire Analog DSL Capable Subloop that supports an analog signal based DSL technology (such as ADSL). (TDS, App. UNE, Sec 7.2.85)

- 2-Wire / 4-Wire Digital DSL Capable Subloop that supports a digital signal based DSL technology (such as HDSL or IDSL). (TDS, App. UNE, Sec 7.2.8)

- ISDN Subloop is a 2-Wire digital offering that provides a transmission path capable of supporting a 160 Kbps, Basic Rate ISDN (BRI) service that utilizes 2B1Q line code modulation with end user capacity up to 144 Kbps. (TDS, App. UNE, Sec 7.2.7.8)

98.   The CLEC may request, where available, access to the following twisted pair copper sub-loop elements:

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FROM:	TO:
1. Main Distribution Frame	Feeder Distribution Interface or Serving Area Interface
2. Main Distribution Frame	Terminal
3. Feeder Distribution Interface or Serving Area Interface	Terminal
4. Feeder Distribution Interface or Serving Area Interface	Network Interface Device or other point of demarcation
5. Terminal	Network Interface Device or other point of demarcation
6. Stand Alone NID	(Not applicable)
7. Single Point of Interface (Stand Alone)	(Not Applicable)

(Level 3, App. UNE, Sec 8.1) (Tariff, Part 19, Sec. 16, Para. 1. C., Sheet 6)

Engineering Controlled Splice

99.   Access to subloops generally does not exist at Ameritech remote terminal ("RT") sites.

In other words, DLC equipment located at RT sites is generally hardwired to copper pairs

that extend from the RT site to the Serving Area Interface ("SAI")/ Feeder Distribution

Interface ("FDI"). There are several reasons why Ameritech hardwires these copper pairs

at the RT. This configuration eliminates the need for the Ameritech technician to stop at

the RT to run an additional cross-connect on a service order-by-service order basis. This

configuration also avoids the increased cost associated with inventorying a cross-connect

point at the RT site. In addition, savings are realized by not increasing the size of the RT

structure to house the additional cross-connect device. In sum, this configuration

minimizes the cost and time required to install end user services provisioned over DLC.

100.   SBC's voluntary commitments adopted by the FCC in its Project Pronto Modification

Order[16] include another opportunity for CLEC access to Ameritech's subloops. Upon a

CLEC's request and via a special construction arrangement, Ameritech will provide this

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[16] FCC's Second Memorandum Opinion and Order, Application of Ameritech Corp., Transferor, and SBC Communications Inc., Transferee, For Consent to Transfer Control of Corporations Holding Commission Licenses

additional access point to subloops at or near each RT, utilizing an engineering controlled

splice ("ECS").[17] (Telicor, App. UNE, Sec. 9.1)

101.   With the ECS, a CLEC will have the ability to access all SAIs served by an RT site, thus

eliminating the need for the CLEC to place its own copper facilities between a remotely-

located DSLAM and every SAI, or to place its DSLAMs at every SAI.

102.   The following is a list of the additional subloops that a CLEC may now access through an

ECS, thus eliminating the need for CLECs to be collocated at every SAI.

- ECS to SAI/FDI
- ECS to service terminal
- ECS to NID

    (Telicor, App. UNE, Sec. 9.3.1.1)

103.   Accessible Letter CLECAM-102, dated September 15, 2000, offers the ECS to requesting

CLECs, under a special construction arrangement at all Ameritech RT sites. (Telicor,

App. UNE, Sec. 9.1)

104.   Access to terminals for high capacity subloops is defined to include:

- any technically feasible point near the customer premises accessible by a cross-
  connect (such as the pole or pedestal or the minimum point of entry ("MPOE") to the
  customer premises),

- the "RT", only when cross-connect access is available at that RT the Terminal
  (underground or aerial).

- the Terminal (underground or aerial).

    (Telicor, App. UNE, Sec. 8.9.1)

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and Lines Pursuant to Sections 214 and 310(d) of the Communications Act and Parts 5, 22, 24, 25, 63, 90, 95, and
101 of the Commissions Rules, 15 FCC Rcd 17521 (2000) ("Project Pronto Modification Order")
[17] Project Pronto Order, Appendix A, para. 5(d).

105. A CLEC may request access to the high-capacity subloop segment between the Central Office Point of Termination ("POT") and the Remote POT. (Telicor, App. UNE, Sec. 8.9.2)

106. Ameritech technicians will activate the sub-loop elements by placing cross-connect jumpers to the facilities of the CLEC in a manner identical to that used to provision all loop services. The exact methods will depend upon the arrangement of the CLEC equipment at the central office and/or remote location. In addition, the initial activation at a specific location will require installation of CLEC equipment or facilities at that location.

Loop Dark Fiber

107. Ameritech offers loop dark fiber as an unbundled network element. Loop dark fiber is a segment between the serving central office and an end user premises. (Level 3, App. UNE, Sec 18.3.1) Subloop dark fiber is a segment between the serving Ameritech central office and a remote terminal/CEV/Hut or between a remote terminal/CEV/Hut and an end user premises, or between two remotes terminals/CEVs/Huts. (Level 3, App. UNE, Sec 18.3.2) At the Central Offices ("COs") the dark fiber terminates on a fiber distribution frame, or equivalent. In the CO, CLEC access is provided through the same arrangements as for other forms of loops. (Level 3, App. UNE, Sec 18.3.3) At remote terminals, CEVs and Huts, CLEC access to the dark fiber will be provided via the network demarcation point at the end user customer premises and via a fiber distribution frame at the remote terminal/CEV/Hut. (Level 3, App. UNE, Sec 18.3.4)

108. The minimum number of fiber strands that a CLEC can order is two, and fiber strands must be ordered in multiples of two. The maximum number of fiber strands that CLEC

can order is no greater than 25% of the spare facilities in the segment requested. (Level 3, App. UNE, Sec 18.6.1)

109. The demarcation point for dark fiber at central offices, remote terminals and customer premises will be in an Ameritech approved splitter shelf. This arrangement allows for non-intrusive testing. (Level 3, App. UNE, Sec 18.8.1) Ameritech will provide the CLEC physical access to, and the right to connect to, the dark fiber in a remote terminal site which may include cabinets, huts, or vaults, as appropriate, and as further specified in the lease for that segment and consistent with the collocation provisions of any applicable collocation tariffs.

110. Fiber in the distribution plant is not common in Illinois. However, as described in the table above, where such fiber does exist, CLECs may request it as a sub-loop element.

111. If a CLEC wishes to request dark fiber, it must submit a dark fiber facility inquiry, providing the CLEC's specific point to point (A to Z) dark fiber requirements. (Level 3, App. UNE, Sec 18.6.2)

112. Pursuant to Ameritech's tariffs and interconnection agreements, Ameritech provides dark fiber in the feeder segment of the loop as an unbundled network element under the following conditions: Ameritech may reclaim from the CLECs the right to use dark fiber, whether or not the dark fiber is being utilized by CLEC, upon twelve (12) months written notice to the CLEC. Ameritech will negotiate the timing of the reclamation and provide an alternative facility for the CLEC with the same bandwidth, and at the same quality, the CLEC was using prior to reclaiming the facility without any additional cost to the CLEC. Ameritech must also demonstrate to the CLEC that the dark fiber will be needed to meet Ameritech's carrier-of-last resort bandwidth requirements within the 12 months

following the revocation. (Level 3, App. UNE, Sec 18.7) (Tariff, Part 19, Sec. 18, Para. 1. B. 4., Sheet 4)

113. Information for ordering dark fiber loops, subloops and associated cross-connects is also contained in the CLEC Handbook at UNE, Unbundled Dark Fiber, Section 2.0.

114. When a CLEC accesses a copper distribution subloop at a DLC remote terminal, the CLEC may access the high frequency portion of the loop at that point if Ameritech is providing voice service on the loop, in accordance with the Line Sharing Order. 47 C.F.R. § 51.319(h)(6); (Level 3, App. DSL, Sec. 4.1.4)

115. This paragraph left blank intentionally.

Integrated Digital Loop Carrier

116. Integrated Digital Loop Carrier ("IDLC") is a special version of DLC that does not require the host terminal in the CO, but instead terminates directly into the CO switch. By the definition and design of IDLC technology, there is no way to separate the loop from the switch because the switch performs the control and functions normally performed by the host terminal. Approximately 16.2 percent of Ameritech's customer loops in Illinois are served on DLC and of this amount, approximately eight percent of the loops are served on IDLC.

117. If a CLEC requests one or more unbundled loops serviced by IDLC or remote switching technology, Ameritech, where facilities are available, moves the requested unbundled loop(s) to a spare, existing physical pair or a universal digital loop carrier unbundled loop at no additional charge to the CLEC in accordance with the Facility Modification Policy discussed below. Based upon agreements from the collaborative process in Wisconsin, if no spare unbundled loop is available, the CLEC is notified through the IDLC/RSU

Notification process within 24 hours of firm order confirmation. This notification is

provided only when all other alternatives to provision the requested UNE Loop have been

exhausted. These alternatives include looking for spare copper facilities and making

simple facility modifications. In IDLC situations where no other facility modification

can be made, construction work is required to provide the requested facilities.[18]

118.   Ameritech's policy going forward is to install at least one universal digital loop carrier at

each location where IDLC is used. Therefore, a voice grade or ISDN loop should

normally be available on a universal DLC for the CLEC.

DSL Loops

119.   The term digital subscriber line ("DSL") describes various technologies and services.

The "x" in xDSL is a placeholder for the various types of DSL services, such as ADSL

(asymmetric digital subscriber line), HDSL (high-speed digital subscriber line), UDSL

(universal digital subscriber line), VDSL (very high-speed digital subscriber line) and

RADSL (rate-adaptive digital subscriber line). The provisioning of DSL services is

subject to a variety of important technical constraints, including subscriber loop length

and the condition of the loop, which must be free of excessive bridged taps, load coils,

and other devices commonly used to aid in the provision of analog voice and data

transmission but which interfere with the provision of certain DSL services. In addition,

clear spectral compatibility standards and spectrum management rules and practices are

necessary both to foster competitive deployment of innovative technologies and to ensure

the quality and reliability of the public telephone network. (Level 3, App. DSL, Sec. 2.3)

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[18] Accessible Letter, CLECAM00-153, Dated October 27, 2000. "Unbundled Network Element Facility
Modification & Construction Policy Update – Illinois, Indiana, Ohio, Ohio, Wisconsin", page 5

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Unbundled DSL-Capable Loop Offerings:

120.   Ameritech does not deny a CLEC's request to use an Ameritech loop to deploy any of the
        DSL technologies discussed below unless Ameritech has demonstrated to the ICC that
        the CLEC's deployment of its loop technology will significantly degrade the performance
        of other advanced services or traditional voice band services. (Level 3, App. DSL, Sec.
        3.3) Spectral compatibility is maintained by relying on Power Spectral Density ("PSD")
        mask standards. These standards permit divergent technologies to coexist in close
        proximity within the same binder groups. (Level 3, App. DSL, Sec. 10.1)

121.   Industry standards bodies, such as the American National Standards Institute ("ANSI"),
        have developed, or are in the process of developing PSD mask standards for various DSL
        technologies that enable multiple technologies to coexist within binder groups. In the
        event that a loop technology without national industry standards for spectrum
        management is deployed, Ameritech, the CLECs and the ICC will jointly establish long-
        term, competitively neutral spectral compatibility standards and spectrum management
        rules and practices so that all carriers know the rules for loop technology deployment.
        The standards, rules and practices shall be developed to maximize the deployment of new
        technologies within binder groups while minimizing interference, and shall be forward-
        looking and able to evolve over time to encourage innovation and deployment of
        advanced services. These standards are to be used until such time as national industry
        standards are developed. CLECs that offer xDSL-based service consistent with mutually
        agreed-upon standards developed by the industry, or approved by the ICC in the absence
        of industry agreement, may order local loops based on agreed-to performance
        characteristics. Ameritech assigns the local loop consistent with the agreed upon
        spectrum management standards. (Level 3, App. DSL, Sec. 10.1 &10.2)

122.   The CLEC advises Ameritech of the type of PSD mask approved or proposed by

American National Standards Institute Committee T1.E1 that reflects the service

performance parameters of the technology to be used. The CLEC, at its option and

without further disclosure to Ameritech, may provide any service compliant with that

PSD mask so long as it stays within the allowed service performance parameters. The

CLEC shall provide the PSD mask within which it plans to provide xDSL service when

the xDSL-capable loop is ordered. The CLEC shall advise Ameritech if the service is

changed such that a different PSD mask would be applicable. The CLEC shall abide by

standards pertinent for the designated PSD mask at all times. The CLEC service

representative provides such identification on the order form.   (Level 3, App. DSL, Sec.

10.1)

123.   If an industry standards body adopts other national standard technologies (PSD) for

which Ameritech does not already offer a supporting loop, Ameritech will provide a loop

capable of supporting the new technology for CLECs as follows:

124.   If the new technology requires the use of a 2-wire loop materially the same as described

above, with materially the same loop conditioning, Ameritech will provide the CLEC a

loop capable of supporting the new technology at the same rates listed for the appropriate

2-wire loop and associated loop conditioning as needed.   (Level 3, App. DSL, Sec.

4.9.2.1))

125.   If the new technology requires a loop type that materially differs from the existing 2-wire

loops defined above (e.g., different loop design, different conditioning, significantly

different spectrum impact, etc.), Ameritech will make a good faith effort to arrive at an

agreement as to the rates, terms and conditions for an unbundled loop capable of

supporting the proposed technology. If negotiations fail, any dispute concerning the

rates, terms and conditions for an unbundled loop capable of supporting the proposed

technology, will be resolved pursuant to the dispute resolution process provided for in the

CLEC's interconnection agreement with Ameritech. (Level 3, App. DSL, Sec. 4.9.2.2)

Other non-standard DSL technologies:

126.   In the event the CLEC wants to introduce a technology that has been approved by another

state commission or the FCC, or one that has been successfully deployed elsewhere, the

CLEC will provide documentation describing that action to Ameritech and the ICC

before or at the time of the request to deploy that technology in Illinois. The

documentation will include the date of approval or deployment, any limitations included

in its deployment, and a sworn attestation that the deployment did not significantly

degrade the performance of other services   (Level 3, App. DSL, Sec. 3.4)

127.   Ameritech will not deny a requesting CLEC's right to deploy new xDSL technologies

that do not conform to the national standards and have not yet been approved by a

standards body (or otherwise authorized by the FCC, any state commission or which have

not been successfully deployed by any carrier without significantly degrading the

performance of other services) if the requesting CLEC can demonstrate to the ICC that

the loop technology will not significantly degrade the performance of other advanced

services or traditional voice band services. (Level 3, App. DSL, Sec. 4.9)

128.   Upon request by a CLEC, Ameritech will cooperate in the testing and deployment of new

xDSL technologies or may direct the CLEC, at the CLEC's expense, to a third party

laboratory of the CLEC's choice for such evaluation. (Level 3, App. DSL, Sec. 4.9.1)

129.   If Ameritech or a CLEC claims that a service is significantly degrading the performance

of other advanced services or traditional voice band services, then Ameritech or the other

CLEC must notify the carrier and allow that carrier a reasonable opportunity to correct

the problem. Any claims of network harm must be supported with specific and verifiable

supporting information. In the event that Ameritech or a CLEC demonstrates to the ICC

that a deployed technology is significantly degrading the performance of other advanced

services or traditional voice band services, the carrier deploying the technology shall

discontinue deployment of that technology and migrate its customers to technologies that

will not significantly degrade the performance of other such services. (Level 3, App.

DSL, Sec. 4.9.2.3)

130.   Ameritech provides the following xDSL-capable loops:

- 2-Wire xDSL Loop: A copper loop over which a CLEC may provision various DSL
  technologies. A copper loop used for such purposes will meet basic electrical
  standards such as metallic connectivity and capacitive and resistive balance, and will
  not include load coils, mid-span repeaters or excessive bridged tap (bridged tap in
  excess of 2,500 feet in length). (Removal of load coils, repeaters or excessive
  bridged tap on an existing loop is optional, subject to conditioning charges, and will
  be performed at CLECs request.) (Level 3, App. DSL, Sec. 4.1.1)

- 2-Wire Digital Loop (e.g., ISDN/IDSL): A 2-Wire Digital Loop for purposes of this
  offering supports 160 Kbps Basic Rate ISDN (BRI) digital exchange services. An
  IDSL Loop for purposes of this offering is a 2-Wire Digital Loop transmission
  facility which supports IDSL Services. This loop also includes additional acceptance
  testing to insure the IDSL technology is compatible with the underlying Digital Loop
  Carrier system if present. IDSL is not compatible with all Digital Loop Carrier
  Systems and therefore this offering may not be available in all areas. (Level 3, App.
  DSL, Sec. 4.1.2)

- 4-Wire xDSL Loop: A 4-Wire copper loop over which a CLEC may provision DSL
  technologies. A copper loop used for such purposes will meet basic electrical

standards such as metallic connectivity and capacitive and resistive balance, and will not include load coils, mid-span repeaters or excessive bridged tap (bridged tap in excess of 2,500 feet in length). (Removal of load coils, repeaters or excessive bridged tap on an existing loop is optional, subject to conditioning charges, and will be performed at CLECs request.) (Level 3, App. DSL, Sec. 4.1.3)

Line Sharing

131. Provisioning of the High Frequency Portion of the Loop ("HFPL") is accomplished by running the xDSL Loop from the MDF to the CLEC collocation space, and the CLEC connects the loop to its splitter. In addition, the CLEC must connect the splitter to a tie cable pair to return the voice frequency portion of the loop to the Ameritech MDF, and Ameritech must connect the circuit to the central office switch line port just as it does with a traditional loop.

132. Although not required by the FCC rules, Ameritech has agreed to voluntary provide the splitter in some locations for CLEC use. When Ameritech does provide the splitter, Ameritech connects the local loop to the splitter and returns the voice frequency portion of the loop to the MDF. (Level 3, App. DSL, Sec. 5.1.2)

133. Since Ameritech provides the voice circuit wiring through the splitter to the switch port, Ameritech can ensure minimal interruption of customer voice service.

134. CLEC testing of the voice frequency of a shared line must be non-intrusive unless using Mechanized Loop Testing ("MLT"). Ameritech provides the CLECs access to its legacy MLT system and its inherent testing functions. Prior to a CLEC using MLT intrusive test scripts, the CLEC must have established data service on that loop and have specifically informed the customer that service testing will interrupt both the data and voice telephone services served by that line. The CLEC may not perform intrusive testing without having

first obtained the express permission of the end user customer and the name of the person

providing such permission. (Level 3, App. DSL, Sec. 9.5) Further discussion of line

sharing and line splitting in Illinois is provided in the Chapman Affidavit.

Loop Qualification

135. Ameritech uses a loop qualification process ("Loop Qualification") in connection with

provisioning DSL-Capable Loops, including HFPL, that would require conditioning and

spectrum management. Loop Qualification examines the available loop facility for

suitability for use in terms of physical characteristics and spectrum compatibility based

upon the conditions set forth in industry standards. For further discussion of loop

qualification and intervals, see the Chapman Affidavit.

136. Effective September 1, 2000, Ameritech implemented a simple procedure for requesting

and receiving Digital Loop Carrier (DLC) loop percentages by central office. In further

collaborative discussions, the parties agreed that simply providing an overall percentage

of loops served by DLC for each central office did not provide meaningful information

about potential facility issues for orders of unbundled loops. Notwithstanding this

limitation, as requested, Ameritech provides this "central office" level information upon

request within 10 business days and provides a form for CLECs to use to make such

requests.

137. As an alternative, which the CLECs indicated would provide more useful information,

Ameritech, effective December, 2000, also provides access to its new DSL Tracking

Inquiry Tool ("DTI") and Distribution Area ("DA") information from its internal network

systems. The combination of these two tools provide the CLECs with the ability to

identify, within a smaller geographic area in a wire center, where loops are served by

integrated loop carrier or universal loop carrier. This information is more specific than an overall percentage of loops served by DLC in a central office.

Facility Modification Process Description

138. A process improvement that resulted from the Wisconsin OSS collaborative discussions mentioned above is the implementation of a revised Facility Modification (FMOD) process. This FMOD process, as described in Accessible Letter CLECAM00-153 dated October 27, 2000, and updated in Accessible Letter CLECAM01-096, dated April 4, 2001, was developed to address the concerns of the CLECs regarding facility availability. The policy's focus is to ensure that there is no discrimination between retail and wholesale customers. Through the collaborative discussions between Ameritech and CLECs, significant modifications to the Facility Modification process were made in response to issues raised by the CLECs and in an effort to find solutions to their operational and process concerns, specifically related to loop assignment and facilities availability. The primary purpose of the FMOD process is to significantly reduce the number of CLEC UNE orders that are canceled as a result of a "no facilities" situation. A "no facilities" situation occurs when there are no spare facilities available to provision the CLEC's request at the time the CLEC's order is processed electronically or manually through Ameritech's provisioning systems. The new process is also intended to improve the communication process with CLECs when "no facilities" situations occur, and to provide consistent timeframes for various facilities notifications provided to CLECs. The FMOD Policy reinforces comparable treatment of retail and wholesale end users' requests for service when facility modifications or additions are required to provision the requested service.

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139. The FMOD Policy defines when and under what circumstances facility modifications or

    construction activities will be made or offered to provision CLEC requests for UNEs.

    The policy also describes the notifications (Forms) that the CLEC receives to provide

    UNE order status, the timing of those notifications to the CLEC and the overall process

    flow.[19] See the Brown Affidavit for more information on how this policy is implemented

    in the ordering process. The FMOD is divided into four components: simple

    modifications, complex modification, IDLC/RSU situations and new build.

Simple Modification

140. Under the FMOD Policy, simple facility modifications are made at no separate charge to

    the CLEC and the requested UNE product is provisioned, typically without a delay to the

    established due date. Prior to the implementation of the Facility Modification Policy,

    some of these same orders were canceled due to there being no facilities available.

    Examples of simple modifications include:

- Line and Station Transfers

- Clear Defective Pair/Defective Pair Recovery

- Install Plugs/Cards in Repeater Cases

- Wire out of Limits

- Break Connect Through

- Install Universal Digital Carrier

- Install PG-Plus (Pair Gain for Unbundled ISDN only)

141. During the provisioning process, if Ameritech determines that there is a facility issue that

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[19] The notification process established under the FMOD Policy is responsive to the CLECs request for: a) timely notice of potential provisioning delays due to facilities availability, and b) more detailed information regarding work required and any costs associated with provisioning the "unavailable" facilities.

could delay the completion of a UNE order, the CLEC is notified of a potential delay.

This initial notification, the Facility Modification Delay Notification, Form A, is

provided to the CLEC within 24 business hours of the initial Firm Order commitment

("FOC").

Complex Modifications

142. More extensive modifications of existing facilities, those that require design engineering

and/or the addition of equipment, are also offered under the new policy. These are called

complex facility modifications and include such work as conditioning, placing or

rearranging cable or terminals and expanding electronics to provide additional capacity.

143. If a complex modification is required to provision the requested UNE, the CLEC is

provided notification through a Complex Facility Modification Notification, Form B,

within 72 business hours of the initial delay notification (Form A). The complex

notification provides a description of the facility work required to provision the order,

whether charges to the CLEC are required, the new due date, and allows the CLEC to

accept or reject the complex modification if the CLEC is to be charged for the work.

144. Because the work required under a complex modification takes more time to complete,

the requested due date may be extended to allow completion of the facility rearrangement

or addition. However, the order for the requested UNE is not cancelled. The order is

revised by Ameritech to reflect the new due date, the CLEC is provided a revised FOC

and the order is completed according to the new due date. If a complex modification, for

example loop conditioning, requires additional charges, CLEC authorization is required

before a new due date is established. The CLEC has up to ten business days to respond if

charges are involved.

145.   The FMOD Policy also provides a notification and quote process for situations where the

requested UNE is served by an IDLC or a remote switching unit ("RSU"). The CLEC is

provided this notification when there are no spare physical loops to provision the

requested service and all other alternatives to provision the order have been exhausted.

Under the FMOD policy, once a CLEC is notified that a requested UNE is served by

IDLC or RSU the CLEC may request or decline the preparation of a quote for the

construction work required to provision the UNE. The CLEC has up to 10 business days

to respond and during this time, the order is held in an "open" status by the Local Service

Center ("LSC"). Therefore, the CLEC does not have to resubmit its order to Ameritech if

it wants to proceed with the additional construction work required to provision the

requested UNE. If the CLEC requests a quote, one is provided within 30 days of receipt

of the CLEC's authorization to proceed with the quote, or sooner if possible. Ameritech

makes every effort to provide the quotes to meet an internal target of 15-21 days.

146.   More specifically, when Ameritech determines that a requested UNE is provisioned

through IDLC or RSU, it makes every effort to identify other alternatives to provision the

order. These alternatives include looking for spare copper facilities and making simple

modifications. These simple facility modifications are done at no additional charge to the

CLEC. In addition, complex modifications, such as rearranging or placing cable and/or

new equipment, are also done in an effort to provision the service.

147.   The CLEC is notified of an IDLC situation only after all other options to identify or make

available a spare copper loop have been exhausted. In IDLC situations where no other

facility modifications can be made, and construction work is required to provide the

requested UNE, Ameritech develops the estimated completion date for the work.

148.	The FMOD Policy addresses "new build" situations, where there are no existing facilities in place or planned to provide communications services to Ameritech retail or CLEC end users. A new build situation occurs when there is a new business or residential development or a new building to which facilities have not been provided by Ameritech. Under the FMOD policy, the CLEC is notified when a new build situation exists and that it may pursue the provisioning of the requested UNE, but it should be done through Ameritech's construction policy for new buildings, business and residential developments.

Provisioning Process

149.	Operational and process improvements have been implemented by Ameritech in response to collaboratives held between Ameritech, CLECs and state public utility commissions' staffs. These collaboratives began in Wisconsin in February, 2000 and the process improvements agreed to by the parties were accepted by the Wisconsin Commission in a December 15, 2000 order in Docket No. 6720-TI-160 U.[20] Ameritech agreed to implement the process improvements throughout its five-state region.

150.	Ameritech's provisioning processes and systems used for wholesale service requests are the same processes and systems used for its retail requests. Ameritech also provides very detailed written procedures and guidelines for its employees to follow in determining loop availability for requests for service.

151.	The Ameritech systems are designed to automatically assign many of the orders it receives by using a series of queries and sequential steps to determine if an assignment can be accomplished electronically. Most of the CLEC and retail service requests are

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[20] Investigation into the Operational Support Systems of Ameritech Wisconsin, Docket No. 6720-TI-160

provisioned electronically through the Loop Facility Assignment Control System

("LFACS"). Therefore, orders are provisioned consistently whether the service is for an

Ameritech end user of wholesale customer.

152. If the Ameritech systems determine that an order cannot be electronically assigned, it is

forwarded to an Ameritech Facility Assignment or Facility Resolution Center for manual

handling. Orders, both retail and wholesale, that require manual provisioning are

assigned and prioritized by their due date by the provisioning systems. The facility

center staffs attempt to provision orders manually by a series of steps including assigning

a connected-through facility, making a line and station transfer or assigning a cleared

defective pair. If no facility changes can be made by the facility centers, orders are

forwarded to an Ameritech engineer for handling.

153. The Ameritech engineer reviews the request for service and determines what must be

done to provision the requested service. This process includes reviewing internal

provisioning systems once again for spare facilities or modifications that can be made as

well as pending construction jobs that will make facilities available. The information

developed by the engineer, including a description of the work required to provision the

orders and a revised due date, is communicated to the CLEC by the LSC within the

timeframes specified in the FMOD process.

Performance Measures

154. The following performance measures are associated with the FMOD Process:

- CLEC-W1 – Average Delay in Original FOC Due Date

- CLEC-W6 – FMOD Process: Percentage of Form A Received w/in the Interval

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- CLEC-W7 – FMOD Process: Percent of Form B, C, D and E Received w/in 72 Hours of Form A

- CLEC-W8 – FMOD Process: Percent of Form B Returned FOC within 24 Hours

- CLEC-W9 - FMOD Process: Percent of Form C Return Quote w/in the Interval

- CLEC-W11 – FMOD Process: Percent Due Date Met

155.   The following Performance Measures are related to the provisioning and maintenance of Unbundled Loops:[21]

Provisioning

- PM 43 - Average Installation Interval

- PM 44 - Percentage Installations Completed Within 20 Calendar Days

- PM 45 - Percent Ameritech Caused Missed Due Dates

- PM 46 - Percent Trouble Reports within 30 Days (1-30) of Installation

- PM 47 - Percent Ameritech Missed Due Dates Due to Lack of Facilities

- PM 48 - Average Delay Days for Missed Due Dates Due to Lack of Facilities

- PM 49 - Average Delay Days For Ameritech Caused Missed Due Dates

- PM 50 - Percent Ameritech Caused Missed Due Dates > 30 days

- PM 51 - Count of Orders Cancelled After the Due Date Which were Caused by Ameritech

- PM 51.1 - Average Delay Days for Ameritech Caused Canceled Orders –Resale Specials

- PM MI 1 – Percentage of Orders given Jeopardy Notices

- PM MI 2 – Percentage of Orders given Jeopardy Notices within 24 Hours of the Due Date

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[21] These performance measures are in addition to those associated with the FMOD Process above.

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- PM MI 3 Coordinated Conversions Outside of the Interval

- PM WI 1 – Percentage No-Access for UNE Loops – Provisioning

- PM IN-1 - Percent Loop Acceptance Test completed on due date

Maintenance -

- PM 52 - Mean Time to Restore

- PM 53 - Percent Repeat Reports

- PM 54 - Failure Frequency

Provisioning - Unbundled Network Elements

- PM 55 - Average Installation Interval

- PM 55.1 - Average Installation Interval - DSL

- PM 55.2 - Average Installation Interval for Loop with LNP

- PM 56 - Percent Installations Completed Within "X" Days

- PM 57 - Average Response Time for Manual Loop Make-up Information

- PM 58 - Percent Ameritech Caused Missed Due Dates

- PM 59 - Percent Trouble Reports Within 30 Days (1-30) of Installation

- PM 60 - Percent Ameritech Missed Due Dates Due to Lack of Facilities

- PM 61 - Average Delay Days for Missed Due Dates Due To Lack Of Facilities

- PM 62 - Average Delay Days for Ameritech Caused Missed Due Dates

- PM 63 - Percent Ameritech Caused Missed Due Dates > 30 days

- PM 64 - Count of Order4s Cancelled After the Due Date Which Were Caused by Ameritech

- PM 64.1 -Average Delay Days for Ameritech Caused Canceled Orders – UNE

- PM WI 2 – Percent No-Access for UNE Loops - Maintenance

- PM 65- Trouble Report Rate

- PM 66- Percent Missed Repair Commitments

- PM 67- Mean Time to Restore

- PM 68- Percent Out Of Service (OSS) < "24" Hours

- PM 69- Percent Repeat Reports

IV. CHECKLIST ITEM (v): LOCAL TRANSPORT

156.   A BOC such as Ameritech meets the requirements of checklist item (v) if it offers access

to "Local transport from the trunk side of a wireline local exchange carrier switch

unbundled from switching or other services." 47 U.S.C. § 271 (c)(2)(B)(v). Ameritech

complies with this requirement.

157.   Local transport consists of Ameritech interoffice transmission facilities dedicated to a

particular customer or carrier, or Unbundled Local Switching with Unbundled Shared

Transport ("ULS-ST") that is shared by more than one customer or carrier, that provide

telecommunications between wire centers owned by Ameritech or a CLEC, or between

switches owned by Ameritech or a CLEC. Ameritech offers both ULS-ST and Dedicated

Transport to all CLECs. 47 U.S.C. § 271(c)(2)(B)(v); 47 C.F.R. § 51.319(d). (Level 3,

App. UNE, Sec. 10.3 and (Telicor, App. UNE, Sec. 11.6 and 12)) (Tariff, Part 19, Sec. 12

and Sec 21[22])

Unbundled Local Switching with Shared Transport

158.   Ameritech provides access to unbundled shared transport when it is purchased in

conjunction with an Unbundled Local Switching ("ULS") port that the CLEC subscribes

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[22] Section 21 became Effective October 10, 2000, but is currently under investigation in ICC Docket 00-0700.

to for the purpose of delivering traffic from/to a CLEC end-user. This offering is known

as Unbundled Local Switching with Shared Transport ("ULS-ST") and is provided on a

per ULS port basis. (Tariff, Part 19, Sec. 21, Sh. 2, Para. 1. A)

159. ULS-ST permits the CLEC to access the interoffice network of Ameritech for the

origination from, and completion to, the associated ULS port of end user local traffic to,

and from, Ameritech switches or third-party switches. ULS-ST also permits access to

that network, using Common Transport and Tandem Switching, for the origination from,

and completion to, the associated ULS port of end user toll traffic where a customer

designated Interexchange Carrier for that ULS port is not directly connected to the

Ameritech switch providing that ULS port. Tariff, Part 19, Sec. 21, Sh. 5, Para. 1. A.)

160. All CLEC local traffic between Ameritech switches will use Shared Transport and all

local CLEC traffic to non-Ameritech switches will use the transit function of Shared

Transport (with this transit function being referred to as "Shared Transport-Transit"). All

interexchange traffic will be routed to the interLATA (PIC) or intraLATA toll (LPIC)

Interexchange Carrier, as appropriate, selected for that ULS port. (Tariff, Part 19, Sec.

21, Sh. 6, Para. 1. A.)

161. Ameritech will use the existing Ameritech routing tables contained in Ameritech

switches, to provide ULS-ST. (Tariff, Part 19, Sec. 21, Sh. 5, Para. 1. A.) The CLEC is

not required to purchase a trunk port or associated equipment for the use of ULS-ST.

(Tariff, Part 19, Sec. 21, Sh. 6, Para. 1. A.)

162. Ameritech is responsible for the engineering, provisioning, and maintenance of the

underlying equipment and facilities that are used to provide Interoffice Transport.

163. ULS-ST permits CLEC access to Ameritech's network using a shared interoffice

transmission path between Ameritech switches. ULS-ST permits a CLEC to have calls

switched to other Ameritech switches over Ameritech's common transport network,

using the Unbundled Local Switching network element purchased from Ameritech.

ULS-ST also permits a CLEC to use Ameritech's common transport network between an

Ameritech tandem and an Ameritech end-office switch. In addition, under the I2A (I2A,

2.1.3, 2.1.4)[23], CLECs may use Ameritech's shared transport to provide local and

intraLATA toll service to those end users to which they provide basic local exchange

service. ULS-ST is provided in accordance with the Third Reconsideration Order and the

revised 47 C.F.R. § 51.319(d)(1)(C). (Tariff, Part 19, Sec. 21, Sh. 5, Para. 1. A.)

Dedicated Transport

164. Dedicated Transport is an interoffice transmission path dedicated to a particular customer

or carrier that provides telecommunications between wire centers owned by Ameritech or

a CLEC, or between switches owned by Ameritech or a CLEC. Dedicated Transport

includes interoffice dark fiber and Digital Cross-connect System ("DCS") functionality as

specified below. (Level 3, App. UNE, Sec. 10.3.1)

165. Ameritech offers Dedicated Transport as a transmission path dedicated to a CLEC. The

following transmission speeds are available as standard offerings:

- DS1 (1.544 Mb/s)

- DS3 (45 Mb/s)

- OC3 (155.520 Mb/s)

- OC12 (622.080 Mb/s)

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[23] CLECs purchasing UNE-P from the Interim Combinations Tariff or the Illinois PUA 2001 contract Amendment
can obtain similar shared transport capabilities.

- OC48 (2488.320 Mb/s)

- Higher speeds will be made available to the CLECs as they are deployed in Ameritech wire centers.

(Level 3, App. UNE, Sec. 10.3.2) (Tariff, Part 19, Sec. 12, Sh. 6 & 7, Para. 1. A.)

166. Multiplexing/demultiplexing allows the conversion of higher capacity facilities to lower capacity facilities and vice versa. (Level 3, App. UNE, Sec. 10.3.3.3)

167. Ameritech provides all technically feasible types of multiplexing/demultiplexing. Such multiplexing includes but not is not limited to: (1) DS1/DS0 multiplexing; (2) DS3/DS1 multiplexing; (3) OC3/DS3 multiplexing; (4) OC12/OC3 and OC12/DS3 multiplexing (5) OC48/OC12, OC48/OC3, and OC48/DS3 multiplexing; (6) and other higher rates of multiplexing to the extent facilities are available in Ameritech's network.   Rates for new multiplexing arrangements are established through the BFR process. (Level 3, App. UNE, Sec. 10.3.3.3)   (Tariff, Part 19, Sec. 12, Sh. 11, Para. 1. A.)

Interoffice Dark Fiber

168. Ameritech provides dark fiber in the dedicated interoffice transport segment of the network as an unbundled network element. Interoffice dark fiber is between two different Ameritech Central Offices ("COs") and terminates on a fiber distribution frame, or equivalent, in the CO. Ameritech offers its dark fiber to a CLEC when the CLEC has collocation space in each Ameritech CO where the fibers terminate.   (Level 3, App. UNE, Sec. 18.2.1)

169. Ameritech may reclaim from the CLECs the right to use dark fiber, whether or not the dark fiber is being utilized by a CLEC, upon twelve (12) months' written notice to the CLEC. Ameritech will negotiate the timing of the reclamation and provide an alternative

facility for the CLEC with the same bandwidth, and at the same quality, the CLEC was using prior to reclaiming the facility without any additional cost to the CLEC. Ameritech must also demonstrate to the CLEC that the dark fiber will be needed to meet Ameritech's carrier-of-last-resort bandwidth requirements within the 12 months following the revocation.   (Level 3, App. UNE, Sec. 18.7.1)

170.   If a CLEC wishes to request dark fiber, it must submit a dark fiber facility inquiry, providing the CLEC's specific point to point (A to Z) dark fiber requirements. (Level 3, App. UNE, Sec. 18.6.2)

Digital Cross-Connect System

171.   A Digital Cross-connect System ("DCS") is an electronic device that provides the capability of rearranging circuits on high-speed facilities without the need to de-multiplex the signals. Without a DCS, signals cannot be exchanged between high-speed circuits without returning all of the circuits to analog electrical signals. Ameritech offers DCS in conjunction with the unbundled dedicated transport element with the same functionality that is offered to interexchange carriers or additional functionality as provided in any Ameritech/CLEC interconnection agreement. 47 C.F.R § 51.319 (d)(2)(iv); (Level 3, App. UNE, Sec. 10.5)

172.   Ameritech makes DCS available at those hubs where Ameritech cross-connect systems are located. Ameritech provides a list of those hubs to CLECs.

173.   The following Performance Measures relate to the provisioning of local transport and dark fiber:

Provisioning - Unbundled Network Elements

- PM 55 - Average Installation Interval

- PM 56 - Percent Installations Completed Within "X" Days

- PM 58 - Percent Ameritech Caused Missed Due Dates

- PM 59 - Percent Trouble Reports Within 30 Days (1-30) of Installation

- PM 60 - Percent Ameritech Missed Due Dates Due to Lack of Facilities

- PM 61 - Average Delay Days for Missed Due Dates Due To Lack Of Facilities

- PM 62 - Average Delay Days for Ameritech Caused Missed Due Dates

- PM 63 - Percent Ameritech Caused Missed Due Dates > 30 days

- PM 64 - Count of Orders Cancelled After the Due Date Which Were Caused by Ameritech

- PM 64.1 - Average Delay Days for Ameritech Caused Canceled Orders – UNE

Maintenance - Unbundled Network Elements

- PM 65 - Trouble Report Rate

- PM 67 - Mean Time to Restore

- PM 69 - Percent Repeat Reports

V. CHECKLIST ITEM (vi): LOCAL SWITCHING

174.   A BOC such as Ameritech meets the requirements of checklist item (vi) if it offers access to "Local switching unbundled from transport, local loop transmission, or other services." 47 U.S.C.§ 271 (c) (2)(B)(vi).

175.   Ameritech complies with this requirement. Packet switching will be offered consistent with the UNE Remand Order and the FCC's Rules.

176.   The Rules also require unbundling of local and tandem switching capabilities, including trunk-connect facilities. This includes, but is not limited to, the connection between trunk termination at a cross-connect panel and a switch trunk card, the basic switching function

of connecting trunks and the functions that are centralized in tandem switches. 47 C.F.R.

§ 51.319(c)(2). Ameritech satisfies these requirements. (Level 3, App. UNE, Secs. 9.1 &

9.7); (Tariff, Part 19, Sec. 3 and Sec. 5)

177. Ameritech offers a local switching element that encompasses line-side and trunk-side

facilities plus the features, functions, and capabilities of the switch. The line-side

facilities include the connection between a loop termination at, for example, a main

distribution frame, and a switch line card. 47 C.F.R. § 51.319(c)(1)(A)(i); (Level 3, App.

UNE, Sec. 9.1.1); (Tariff, Part 19, Sec. 3, Sh. 2, Para. 1. A.)

178. The trunk-side facilities include the connection between, for example, trunk termination

at a trunk-side cross connect panel and a trunk card. 47 C.F.R. § 51.319(c)(1)(A)(ii).

(Level 3, App. UNE, Sec. 9.1.2); (Tariff, Part 19, Sec. 3, Sh. 3, Para. 1. A.)

179. The local switching element encompasses all features, functions, and capabilities of the

local switch, including but not limited to the basic switching function of connecting lines

to lines, lines to trunks, trunks to lines, and trunks to trunks. It also includes the same

basic capabilities available to Ameritech customers, such as a telephone number, dial

tone, signaling and access to 911, operator services, directory assistance and features and

functions. In addition, the local switching element includes all vertical features that the

switch is capable of providing, including custom calling, CLASS features, and Centrex-

like capabilities, as well as any technically feasible customized routing,

blocking/screening, and recording functions. 47 C.F.R. § 51.319(c)(1)(iii). (Level 3,

App. UNE, Sec. 9.1.3, 9.1.3.1 thru 9.1.3.3) (Tariff, Part 19, Sec. 3, Sh. 4, Para. 1. A.)

180. For successful call completion, each switch must recognize all NXX codes in order to

determine where calls are to be routed. When a CLEC or other LEC obtains a new NXX

code, Ameritech activates the code in all of its switches in accordance with FCC 99-243,

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Opinion And Order ¶ 82. Ameritech performs this function at no charge to the CLEC.

(Level 3, App. Numbering, Sec. 2.4)

181. The local switching element also includes access to all call origination and completion

capabilities (including intraLATA and interLATA toll calls), and the CLEC is entitled to

all revenues associated with its use of those capabilities, including access and toll

revenues. Ameritech provides a Daily Usage Feed ("DUF") to each carrier that

subscribes to ULS-ST that contains, on a per-call basis, originating and terminating usage

detail for each line-side ULS port used to provide ULS-ST. The DUF will include the

available local (originating and terminating) and access (originating and terminating)

usage records. These recordings permit CLECs to collect all access or toll revenues and

reciprocal compensation associated with the use of the local switching element. (Tariff,

Part 19, Sec. 21, Sh. 8, Para. 1. A.)

182. Ameritech provides the local switching element so that the dialing plan associated with

the port is equal to the dialing plan established in the office for Ameritech's own

customers. In the future, when a dialing plan calls for 10-digit dialing, it will apply

equally to Unbundled Local Switching purchased by CLECs. Except as required to fulfill

CLEC requests for customized routing, Ameritech's local switching element routes calls

on Ameritech's common network to the appropriate trunk or lines for call origination

transport according to the same criteria that Ameritech applies to its own calls. (Tariff,

Part 19, Sec. 21, Sh. 5, Para. 1. A.)

183. When a CLEC requests ULS-ST, Ameritech's local switching element routes calls on

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Ameritech's shared transport network to the appropriate trunks or lines for call origination or termination. The CLEC is not required to purchase a trunk port for access to the shared transport element. All routing to the shared transport is done using the existing Ameritech switch routing table. (Tariff, Part 19, Sec. 21, Sh. 6, Para. 1. A.)

Customized Routing of OS/DA Traffic

184. When a CLEC purchases ULS-ST and elects to route Directory Assistance and Operator Services to its customers through its own Directory Assistance and Operator Services platforms, Ameritech provides the functionality and features required to route calls from the CLEC's customers to CLEC-designated trunks for the provision of CLEC Directory Assistance and Operator Services, in accordance with the CLEC's interconnection agreement. (Level 3, App. UNE, Sec. 9.3.1) When a CLEC purchases ULS-ST, Ameritech uses a customized routing method based upon Advanced Intelligent Network ("AIN") technology.[24]

185. For particular customer serving arrangements listed below, in which Customized Routing is not available through AIN, a CLEC may request Customized Routing of OS/DA calls by the Line Class Code ("LCC") method. If a CLEC does not so request, the customer's operator services and directory assistance calls are routed to the Ameritech OS/DA platform. The particular customer serving arrangements in which customized routing is only available through LCC, due to their incompatibility with AIN, consists of the following: end user service with voice-activated dialing served out of a 5ESS switch; coin services, where Ameritech's network rather than the telephone provides the signaling; hotel/motel services; and certain Centrex-like services with features that are

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[24] See Hampton Rebuttal testimony in Docket 00-0700.

incompatible with AIN.

186.   A CLEC that purchases ULS without shared transport may order custom routing using

LCCs unique to the unbundled switch ports. (Tariff, Part 19, Sec. 3, Sh. 36, Para. 1 E.,)

187.   CLECs may request custom routing other than the LCC or AIN method via the Bona Fide

Request process.

188.   The FCC has found that Ameritech's custom routing options provided within the

Unbundled Local Switching offering meet the requirements for customized routing itself

and for qualifying to remove OS/DA as UNEs. The FCC most recently affirmed its

position on OS and DA in the Order approving the Joint 271 Application for Kansas and

Oklahoma.[25]

189.   In the Kansas/Oklahoma 271 Order (where SWBT offered OS/DA as competitive

wholesale services at market-based rates and not as UNEs), the FCC affirmed that SWBT

met the checklist requirements for Unbundled Local Switching (Checklist Item #6) and

for Directory Assistance and Operator Services (Checklist Item #7). As to Unbundled

Local Switching, the FCC concluded:

> 242. Based on the evidence in the record, we conclude that SWBT demonstrates
> that it complies with checklist item 6. Specifically, SWBT demonstrates that it
> provides: (1) line-side and trunk side facilities; (2) basic switching functions; (3)
> vertical features; (4) customized routing;[730] (5) shared trunk ports; (6)
> unbundled tandem switching; (7) usage information for billing exchange access;
> and (8) usage information for billing for reciprocal compensation. The Kansas
> and Oklahoma Commissions conclude that SWBT is in compliance with

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[25] See Memorandum Opinion and Order, Application by SBC Communications, Inc., Southwestern Bell Telephone
Company, and Southwestern Bell Communications Services, Inc. d/b/a Southwestern Bell Long Distance Pursuant
to Section 271 of the Telecommunications Act of 1996 to Provide In-Region, InterLATA Services in Kansas and
Oklahoma, CC Docket No. 00-217, FCC 01-29 (rel. January 22, 2001) ("KS/OK Order").

checklist item 6. Furthermore, the terms and conditions for local switching in both the K2A and the O2A are similar to those in the T2A, which we considered in the Texas 271 proceeding and determined to satisfy the requirements of checklist item 6. One significant modification to the T2A, however, is the addition of a provision for unbundled packet switching which, as discussed below, we find satisfies the requirements of the *UNE Remand Order*. (Most footnotes omitted.)

Ftnt 730: An incumbent LEC must provide customized routing as part of the local switching element, unless it can prove to the state commission that customized routing in a particular switch is not technically feasible. *Second BellSouth Louisiana Order* at 13 FCC Rcd at 20728 n.705. Customized routing permits requesting carriers to designate the particular outgoing trunks associated with unbundled switching provided by the incumbent, which will carry certain classes of traffic originating from requesting carriers' customers. *See Id.* at 20728-29, para. 221; SWBT Deere Aff. at paras. 134-137. Customized routing is also referred to as selective routing. *Second BellSouth Louisiana Order* at 20728 n.704.

(Kansas/Oklahoma Order, ¶242 and n. 730, emphasis added.)

190.   Checklist Item 7, was approved by the FCC in the Kansas/Oklahoma Order en masse with other checklist items.

255. An applicant under section 271 must demonstrate that it complies with checklist item 3 (poles, ducts, conduits and rights of way), item 5 (unbundled local transport), item 7 (911/E911 access and directory assistance/operator services), item 9 (numbering administration), item 10 (databases and associated signaling), item 11 (number portability), and item 12 (local dialing parity). Based on the evidence in the record, and in accordance with Commission rules and orders concerning compliance with section 271 of the Act, we conclude that SWBT demonstrates that it is in compliance with checklist items 3, 5, 7, 9, 10, 11 and 12 in both Kansas and Oklahoma. The Kansas and Oklahoma

Commissions also conclude that SWBT complies with the requirements of each of these checklist items. No commenter raised allegations challenging SWBT's compliance with checklist items 3, 9 and 12. Insofar as commenters raised issues concerning checklist items 5, 7, 10 and 11, we address these issues elsewhere in this Order. (KS/OK Order, Paragraph 255, Footnotes Omitted)

191. Further, in delineating the statutory requirements for checklist item #7, specifically speaking to OS/DA, the FCC stated in Appendix B to the KS/OK Order:

4. … Although the Commission originally concluded that BOCs must provide directory assistance and operator services on an unbundled basis pursuant to sections 251 and 252, the Commission removed directory assistance and operator services from the list of required unbundled network elements in the *Local Competition Third Report and Order*. Checklist item obligations that do not fall within a BOC's obligations to provide unbundled network elements are not subject to the requirements of sections 251 and 252, including the requirement that rates be based on forward-looking economic costs. (Footnotes omitted.)

192. These FCC findings echoed the FCC's finding in its Texas 271 Order.[26]

193. To complete the link between Kansas/Oklahoma and Ameritech's custom routing offering, one need only look at the Kansas 271 Agreement ("K2A") and the Oklahoma 271 Agreement ("O2A").[27] Section 5.2.4 of the UNE Appendix delineates that AIN-based custom routing is available with the Unbundled Local Switching product. Specifically, the K2A and O2A in the UNE Appendix state:

5.2.4.1 Where CLEC purchases Unbundled Local Switching or Resale and elects to provide Directory Assistance and Operator Services to its customers through

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[26] See Memorandum Opinion and Order, Application by SBC Communications, Inc., Southwestern Bell Telephone Company, and Southwestern Bell Communications Services, Inc. d/b/a Southwestern Bell Long Distance Pursuant to Section 271 of the Telecommunications Act of 1996 to Provide In-Region, InterLATA Services in Texas, CC Docket No. 00-65, FCC 00-238 (rel. June 30, 2000) ("Texas Order").

its own Directory Assistance and Operator Services platforms, SWBT will

provide the functionality and features required to route calls from CLEC

customers for Directory Assistance and Operator Services <u>to CLEC designated</u>

<u>trunks</u> for the provision of CLEC Directory Assistance and Operator Services, in

accordance with this Attachment.

194. As affirmed by the FCC, Custom Routing happens at the end office switch. When a

CLEC is using Ameritech Unbundled Local Switching (ULS) or Unbundled Local

Switching with Shared Transport (ULS-ST) and its end user makes a call to OS or DA, it

is Ameritech's end office switch that must recognize and route the call for the end user

based on the CLEC's routing instructions. The CLEC may choose one of two routes for

its end-user's OS/DA call to travel. It may choose to have the end office switch route

that OS or DA call in the exact manner as an OS or DA call made by an Ameritech end-

user – that is, to follow Ameritech Illinois's normal standard routing tables. In this first

instance, the OS or DA call would route over Ameritech's dedicated trunks to

Ameritech's OS/DA platform.[28] The second route the CLEC may choose requires the

CLEC to use the custom routing option Ameritech is required to provide.[29] In this second

instance, the CLEC can specify to what dedicated trunk group it wants that OS or DA call

to route. Generally, in this instance, the CLEC would point to a trunk group destined for

its OS/DA provider. This latter instance is the "qualifying" form of custom routing that

the FCC has affirmed once again.

195. If a carrier wishes to use a different form of custom routing, i.e. to somehow aggregate its

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[27] The K2A and O2A, as well as the 13-state interconnection agreement, are available on an unrestricted basis on SBC/Ameritech's CLEC OnLine website, which can be accessed at: <https://clec.sbc.com> and then clicking on "interconnection agreements".

[28] In this instance, the CLEC has chosen to use Ameritech's wholesale OS/DA services in order to provide OS/DA services to its end users.

[29] As discussed above, two options are available to the CLEC to custom route OS/DA traffic when using ULS or ULS-ST: AIN or line class code. Both are priced at TELRIC-based rates.

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OS/DA traffic to one point in a LATA, say at a tandem switch, and to pick up that OS/DA traffic at that point for transport to their OS/DA provider's platform, that carrier may submit a BFR. A BFR is necessary to ascertain the technical feasibility of the carrier's request and, if technically feasible, the cost of such a design.

Features and Functions

196.   Ameritech allows a CLEC to designate the features and functions that are to be activated on a particular unbundled switch port to the extent that such features and functions are available or as may be requested under the BFR process. When a CLEC purchases unbundled local switching, Ameritech provides the CLEC the vertical features that the switch is capable of providing.   (Level 3, App. UNE, Sec. 9.2.2)

197.   Ameritech offers the following types of switch ports:

- Analog Line Port[30] (Level 3, App. UNE, Sec. 9.5.1.1.1 – 9.5.1.1.3) (Tariff, Part 19, Sec. 3, Sh. 2, Para. 1. A.)

- Analog (DID) Trunk Port (Level 3, App. UNE, Sec. 9.5.1.2.1) (Tariff, Part 19, Sec. 3, Sh. 3.1, Para. 1. A.)

- DS1 Trunk Port[31] (Level 3, App. UNE, Sec. 9.5.1.2.3) (Tariff, Part 19, Sec. 3, Sh. 3.1, Para. 1. A.)

- ISDN Basic Rate Interface (BRI) Port[32] (Level 3, App. UNE, Sec. 9.5.1.1.4) (Tariff, Part 19, Sec. 3, Sh. 2, Para. 1. A.)

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[30] A basic analog line port may be configured as either ground start or loop start. The Analog Line Port can be provisioned with Centrex-like features and capabilities, including electronic key telephone service and attendant console lines.

[31] This ULS Trunk Port provides for digital trunk access via a 1.544 Mbps central office termination. This arrangement furnishes the equivalent of 24 individual network access lines. The ULS Trunk Port is used to terminate facilities used in the completion of ULS Custom Routing calls and may also be used for the termination of telecommunications carrier provided facilities coming into the end office switch.

[32] Ameritech's ISDN Direct Line Port can also be arranged for CENTREX service.

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- ISDN Primary Rate Interface (PRI) Port[33] (Level 3, App. UNE, Sec. 9.5.1.2.2)
  (Tariff, Part 19, Sec. 3, Sh. 3.1, Para. 1. A.)

198. CLECs may request additional port types from Ameritech through the BFR process.

Packet Switching

199. Ameritech will provide CLECs access to unbundled packet switching when all of the
following conditions, as specified by the FCC in the UNE Remand Order, are satisfied:

- Ameritech has deployed digital loop carrier systems, including but not limited to,
  integrated digital loop carrier or universal digital loop carrier systems; or has
  deployed any other system in which fiber optic facilities replace copper facilities in
  the distribution section (e.g., end office to remote terminal, pedestal or
  environmentally controlled vault); (Telicor, App. UNE, Sec 10.1.1) and

- There are no spare copper loops capable of supporting the xDSL services the
  requesting carrier seeks to offer; (Telicor, App. UNE, Sec. 10.1.2) and

- Ameritech has not permitted a requesting carrier to deploy a Digital Subscriber Line
  Access Multiplexer ("DSLAM") at the remote terminal, pedestal or environmentally
  controlled vault or other interconnection point, nor has the requesting carrier obtained
  a virtual collocation arrangement at these sub-loop interconnection points as defined
  by 47 C.F.R. § 51.319(b); (Telicor, App. UNE, Sec. 10.1.3) and

- Ameritech has deployed packet switching capability for its own use. (Telicor, App.
  UNE, Sec. 10.1.4)

200. In each instance, a determination of whether these conditions have been met must be
made at the time a CLEC requests packet switching.

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[33] Ameritech offers this as an ISDN Prime Trunk Port.

Tandem Switching

201.   Ameritech's unbundled tandem switching element meets all requirements of the FCC's

Rules. Tandem switching is defined as trunk-connect facilities, including but not limited

to the connection between trunk terminations at a cross connect panel and a switch trunk

card; the basic switching function of connecting trunks to trunks; and all technically

feasible functions that are centralized in tandem switches (as distinguished from separate

end office switches), including but not limited to call recording, the routing of calls to

operator services, and signaling conversion features. 47 C.F.R. § 51.319(c)(2). (Level 3,

App. UNE, Sec. 9.7.1.1 thru 9.7.1.3); (Tariff, Part 19, Sec. 5, Sh. 1, Para. 1. A.)

202.   Tandem switching provides trunk-to-trunk connections for local calls between two end

offices, including two offices belonging to different CLECs. (Tariff, Part 19, Sec. 5, Sh.

1, Para. 1. A.)

203.   To the extent all signaling is SS7, tandem switching preserves CLASS features and Caller

ID as traffic is processed.

204.   Ameritech performs testing through the tandem switching element for CLECs in the same

manner and frequency that it performs such testing for itself.

205.   To the extent that Ameritech manages congestion for tandem switching for itself, it also

controls for CLECs using the tandem switching element, congestion points such as those

caused by radio station call-ins, and network routing abnormalities, using capabilities

such as Automatic Call Gapping, Automatic Code Gapping, Automatic Congestion

Control, and Network Routing Overflow. (Tariff, Part 19, Sec. 5, Sh. 6, Para. 1. BB.)

206.   A CLEC may request additional switching elements through the BFR process.

IntraLATA Toll Dialing Parity

207.   In addition to and aside from the checklist requirements, Section 271(e)(2) of the Act

requires a Bell Operating Company to provide intraLATA dialing parity at the time the

company is granted approval to offer interLATA toll service. Ameritech implemented

intraLATA toll dialing parity in 1996 pursuant to the ICC's order in the Customer First

proceeding (Docket 94-0096).. All Ameritech central offices in Illinois are currently

equipped to provide two PIC codes to allow end users to select both their intraLATA and

interLATA toll service provider.

Cross Connects

208.   The terms and conditions for CLECs choosing to access unbundled local switching or

any other Ameritech UNE through collocation arrangements are discussed in the Scott

Alexander Affidavit.

209.   Cross connections are the facility by which Ameritech extends its network to the point of

access selected by a CLEC, as described above. The FCC's First Report and Order

required incumbent LECs to provide such facilities and stated that the LEC could recover

the costs associated with providing cross connections.

210.   The cross-connect is the media between the Ameritech distribution frame and a CLEC

designated point of access. (Level 3, App. UNE, Sec. 14.1)

211.   Cross-connections are wires, fibers or equipment that connect one piece of equipment to

another on a semi-permanent basis. For instance, some cross-connections are made by a

simple pair of copper wires called a jumper.

212. Different loop options require different types of cross-connections. In fact several cross-connection jumpers may be required for many of the options. The applicable loop cross connects to point of access for the purpose of CLEC combining an Ameritech Loop with another Ameritech UNE are as follows:

- 2-Wire Analog Loop to UNE Connection Methods point of access
- 4 -Wire Analog Loop to UNE Connection Methods point of access
- 2 -Wire Digital Loop to UNE Connection Methods point of access
- 4 -Wire Digital Loop to UNE Connection Methods point of access

(Level 3, App. UNE, Sec. 14.3)

213. The applicable Unbundled Dedicated Transport cross connects to the UNE Connection Methods point of access for the purpose of CLECs combining Unbundled Dedicated Transport to another Ameritech UNE is as follows:

- DS-1 to UNE Connection Methods point of access

(Level 3, App. UNE, Sec. 14.4)

214. The applicable Switch Port cross connects to the UNE Connection Methods point of access for the purpose of CLECs combining Switch Ports to another Ameritech UNE are as follows:

- Analog Line Port to UNE Connection Methods point of access
- ISDN Basic Rate Interface (BRI) Line Port to UNE Connection Methods point of access.
- ISDN Primary Rate Interface (PRI) Trunk Port to UNE Connection Methods point of access
- Analog DID Trunk Port to UNE Connection Methods point of access
- DS-1 Trunk Port to UNE Connection Methods point of access

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(Level 3, App. UNE, Sec. 14.5.1 – 14.5.5)

215. Ameritech offers the choice of three types of cross-connects with subloop elements. The applicable cross-connects are as follows:

- Two wire (analog and digital)

- Four wire (analog and digital)

- Dark Fiber

Engineering Controlled Splice

216. In compliance with the FCC's <u>Project Pronto Modification Order</u>, Ameritech makes available an Engineering Controlled Splice ("ECS") for CLECs to gain access to sub-loops where Ameritech deploys Next Generation Digital Loop Carrier to support xDSL and POTS at an existing remote terminal where space is currently not available using a special construction arrangement. As a voluntary decision, Ameritech includes all remote terminals for consideration of the ECS, as CLECs were made aware of via Accessible Letter CLECAM00-102, issued September 15, 2000. Cross-connection to sub-loop elements may be made at the ECS. (Telicor 3, App. UNE, Sec. 9)

217. Cross-connections must also be used with Unbundled Dedicated Transport ("UDT"). The following cross connects are available with UDT (and for Loop and Ports):

- 2-wire
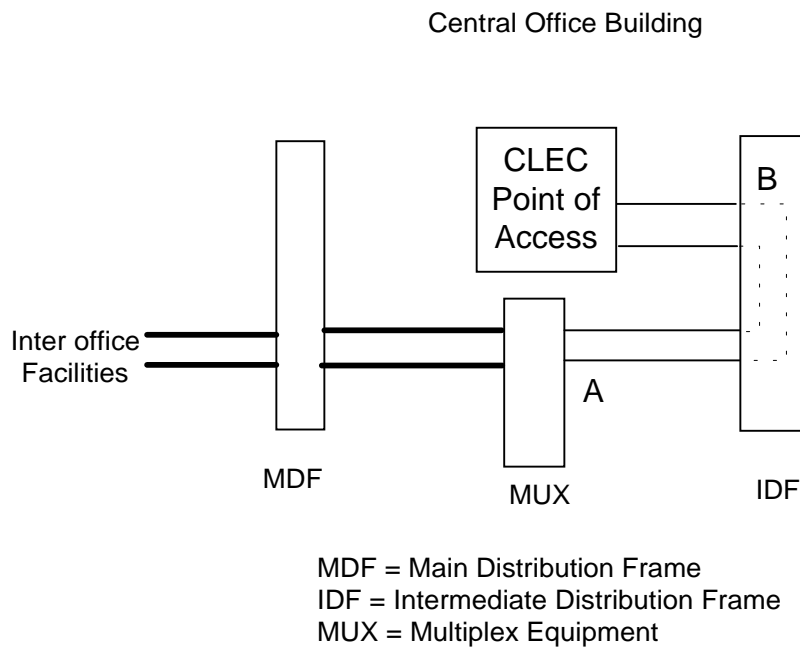
- 4-wire

- 6-wire

- 8-wire

- DS-1

- DS-3

- OC-3

- OC-12

- OC-48

- LT1

- LT3

(Level 3, App. UNE, Sec. 14.10) (Tariff, Part 23, Sec. 4, Sh. 46, Para. 3. C.)

218.   The dedicated transport cross-connects are the equipment needed to connect the interoffice dedicated transport transmission facilities to the point of access.

219.   The 2-wire voice grade dedicated transport cross-connect is designed to provide the equipment needed to multiplex the 2-wire circuit onto a DS1 circuit for interoffice transport. The following diagram shows this arrangement. The cross-connect includes the 2-wire circuit pack in the multiplexer at point A, the cable to the Intermediate Distributing Frame ("IDF") and the jumper on the IDF to the cable to the point of access at point B.

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Central Office Building

CLEC
Point of
Access

B

Inter office
Facilities

A

MDF

MUX

IDF

MDF = Main Distribution Frame
IDF = Intermediate Distribution Frame
MUX = Multiplex Equipment

220.   The 4-wire dedicated transport cross-connect requires twice the jumpers and a different
multiplex card.

221.   The DS1 dedicated transport cross-connect arrangement is identical to that used to cross-
connect to the collocation cage except for the final jumper. Instead of connecting to a
Digital Signal Cross Connect ("DSX") dedicated to the CLEC, the jumper is connected to
a DSX connected to the Ameritech multiplexing equipment.

222.   Since the DS3 entrance facility is a fiber based facility, it includes the necessary
electronics for connecting to a DS3 DSX. The entrance facility is then cross-connected
to a DSX connected to the dedicated interoffice equipment.

223.   Like the loop cross-connections, these connections are made with the same materials and
by the same technicians that today accurately place the same type of cross-connections
for Ameritech customers.

224.   CLECs may also use their own cross-connect arrangements to combine UNEs in

collocation arrangements or secured frame arrangements as described in the Alexander

Affidavit. Facility-based CLECs may combine UNEs with their own equipment and all

CLECs may combine UNEs provided by Ameritech. In each arrangement, the UNEs are

extended to a CLEC point of access by Ameritech using one or more of the cross-

connections described above.

225.   The following Performance Measures refer to local switching UNEs:

Provisioning - Unbundled Network Elements

- PM 55 - Average Installation Interval

- PM 56 - Percent Installations Completed Within "X" Days

- PM 58 - Percent Ameritech Caused Missed Due Dates

- PM 59 - Percent Trouble Reports Within 30 Days (1-30) of Installation

- PM 60 - Percent Ameritech Missed Due Dates Due to Lack of Facilities

- PM 61 - Average Delay Days for Missed Due Dates Due To Lack Of Facilities

- PM 62 - Average Delay Days for Ameritech Caused Missed Due Dates

- PM 63 - Percent Ameritech Caused Missed Due Dates > 30 days

- PM 64 - Count of Orders Cancelled After the Due Date Which Were Caused by Ameritech

- PM 64.1 -Average Delay Days for Ameritech Caused Canceled Orders – UNE

Maintenance - Unbundled Network Elements

- PM 65 - Trouble Report Rate

- PM 67 - Mean Time to Restore

- PM 69 - Percent Repeat Reports

VI. CHECKLIST ITEM (x): ACCESS TO DATABASES AND ASSOCIATED SIGNALING

226. The Checklist requires that Ameritech provide nondiscriminatory access to databases and associated signaling necessary for call routing and completion. 47 U.S.C. § 271(c)(2)(B)(x).

227. Ameritech is in compliance with this checklist item.

Interoffice Signaling Systems

228. The two basic signaling technologies used in telecommunications networks are circuit associated signaling and common channel signaling. Prior to SS7 (which is a form of common channel signaling) circuit associated, or in-band, signaling was used for all local central office trunking and much of the long distance trunking. AT&T used CCIS, another form of common channel signaling, on some of its long distance trunking.

229. With circuit associated signaling, all signaling information is carried on the same facility as the voice path. Since signaling and voice share the same path, it is necessary to limit signaling to periods when no voice transmission is occurring. In general, this limits signaling to the set-up time prior to the called carrier's answer and after the completion of the call. With common channel signaling, the signaling information and voice information are carried on separate facilities. This allows signals to be transmitted at any time during a connection. One signal channel is used to transmit the signaling information for a large number of voice paths.

230. The primary elements of the SS7 network are the Signal Transfer Point ("STP"), the signaling links, the Service Switching Point ("SSP") and the Service Control Point ("SCP"). The STP is a packet switching device that provides signaling distribution for

the network. A central office or tandem switching machine that is equipped to process

SS7 signals is a SSP. The transmission paths that connect SSPs to STPs and STPs to

other STPs are called signaling links. Signaling links connecting a SSP to a STP are

called Access Links, or A-Links. The connections between STPs operated by two

different network owners are called Bridge Links, or B-Links (sometimes called D-

Links). Crossover Links, or C-Links, are used to connect a pair of STPs operated in the

same network. Each signaling link operates at 56 kbps. (Level 3, App. SS7, Secs. 1.1,

2.2, 2.3.1, and 2.9)

SS7 Interconnection

231.   Ameritech provides for nondiscriminatory access to its signaling networks and call-

related databases used for call routing and completion. Ameritech provides

nondiscriminatory access to its signaling links and STP on an unbundled basis. 47 C.F.R.

§ 51.319(e). SS7 Interconnection Service is provided to CLECs for their use in

furnishing SS7-based services to their end users or the end users of other CLECs

subtending the SSP or STP of the interconnecting CLEC. This arrangement, which is

identical to the one used by Ameritech itself, permits CLECs to use Ameritech's SS7

signaling network for signaling between their switches, between their switches and

Ameritech's switches, and between their switches and the networks of other parties

connected to the Ameritech SS7 network. 47 C.F.R. § 51.319(e)(1) (Level 3, App. SS7,

Sec. 2.2.2 – 2.2.3).

232.   When a CLEC purchases unbundled switching capability from Ameritech, Ameritech

provides access to its signaling network in the same manner that it provides such access

to itself. Because all unbundled switching elements are provided on switches that

Ameritech uses to provide service to its own customers, all signaling functions are identical. 47 C.F.R. § 51.319 (e)(1)(A). (Level 3, App. SS7, Sec. 2.10.4)

233. Ameritech's Signaling Access Service provides access to the Ameritech SS7 network. Access to the network is provided by subscribing to a Dedicated Network Access Link as described in Ameritech Operating Companies Tariff F.C.C. No. 2, Section No. 8, and a dedicated STP port for telecommunications carriers with their own STPs and/or SSPs. Access is also provided for the carrier subscribing to the Unbundled Local Switching Service. SS7 Service is a Switched Access service that provides dedicated two-way signaling links that interconnect Ameritech STP locations and the CLEC Signaling Points at Signaling Point of Interface locations. The SS7 Service consists of STP Port Termination(s) for CLEC signaling and STP Interconnection Facilities (SS7 Link Cross-Connect). The port terminations consist of port connections of 56 Kilobits per second (kbps) transmission facilities on Ameritech's STP. The STP Interconnection Facility is the facility that lies between the multiplexing hub, which demultiplexes the CLEC's 56 kbps transmission from DS1 transmission facilities and the STP port. These transmission facilities may be provided by the CLEC or may be obtained from Ameritech as dedicated transport facilities. 47 C.F.R. § 51.319(e)(1)(ii). (Level 3App. SS7, Secs. 8.3.1 & 8.3.2)

234. STPs provide signaling connectivity to Network Elements connected to the Ameritech SS7 network. These include:

- Ameritech Local Switching or Tandem Switching;

- Ameritech Service Control Points/Call Related Databases;

- Third Party Local or Tandem Switching System, and;

- Third Party provided STPs.

(Level 3, App. SS7, Sec. 2.11.1)

235.   The connectivity provided by STPs fully supports the functions of all other network

elements connected to the Ameritech SS7 network. This includes use of the Ameritech

SS7 network to convey messages, which neither originate nor terminate at a signaling end

point directly connected to the Ameritech SS7 network. When the Ameritech SS7

network is used to convey such messages, there is no intentional alteration of the

Integrated Services Digital Network User Part (ISDNUP) or Transaction Capabilities

Application Part (TCAP) user data that constitutes the content of the message. (Level 3,

App. SS7, Secs. 2.10, 3.2.1, 3.2.2 & 4.3)

236.   Ameritech provides STP interfaces to terminate A-links, B-links, and D-links.   (Level 3,

App. SS7, Sec. 2.12.1)

237.   A SCP is a specific type of Network Element where call related databases can reside.

SCPs deployed in a SS7 network execute service application logic in response to SS7

queries sent to them by a switching system also connected to the SS7 network. SCPs also

provide operational interfaces to allow for provisioning, administration and maintenance

of subscriber data and service application data (e.g., an 800 database stores customer

record data that provides information necessary to route 800 calls).

238.   Ameritech provides physical interconnection to SCPs through the SS7 network and

protocols, as specified above, with TCAP as the application layer protocol. (Level 3,

App. SS7, Sec. 3.2.2)

Call-Related Databases

239.   Section 271(c)(2)(B)(x) of the Act requires that Ameritech provide nondiscriminatory

access to databases and associated signaling necessary for call routing and completion.

The FCC's rules interpreted this requirement to include nondiscriminatory access to call-related databases. 47 C.F.R. § 52.319(e). As described below, Ameritech meets the requirements of the Act by providing CLECs nondiscriminatory unbundled access to Ameritech's Advanced Intelligent Network ("AIN") database, the 800 database, nondiscriminatory unbundled access to the same Line Information Database ("LIDB") and Calling Name ("CNAM") delivery used by Ameritech, and Ameritech's LIDB Service Management System, known as the Operator Services Marketing Order Processor ("OSMOP").

Toll Free Calling Database

240. Ameritech's Toll Free Calling Database ("800 Database") receives updates processed from the national Service Management System ("SMS"). Customer records in the SMS are created or modified by entities known as Responsible Organizations ("RespOrg") who obtain access to the SMS via Ameritech's 800 Service Management System, Tariff FCC No. 1. 800 Service Providers must either become their own RespOrg or use the services of an established RespOrg. The services of a RespOrg include creating and updating 800 records in the SMS to download in the 800 database(s). Ameritech does not, either through a tariff or contract, provide RespOrg service. (Level 3, App. 800, Sec. 2.2) (Tariff, Part 19, Sec. 10, Sh. 1, Para. 1.A.)

241. After the 800 customer record is created in the SMS, the SMS downloads the records to the appropriate databases, depending on the area of service chosen by the 800 subscriber. An 800 customer record is created in the SMS for each 800 number to be activated. The SMS initiates all routing changes to update information on a nationwide basis. (Level 3, App. 800, Sec. 2.3)

242. Access to the 800 Database allows CLECs to access Ameritech's 800 database for the purpose of switch query and database response. Access to the 800 Database supports the processing of toll free calls (e.g., 800, 888, 877, and 866 [and 855, 844, 833, 822 when available) where identification of the appropriate carrier (800 Service Provider) to transport the call is dependent upon the full ten digits of the toll free number (e.g., 1+800+NXX+XXXX). Access to the 800 Database includes all 800-type dialing plans (i.e., 800, 888, 877, and 866 [and, 855, 844, 833, 822, when available]). (Level 3, App. 800, Sec. 2.4)

243. Access to the 800 Database provides the carrier identification function required to determine the appropriate routing of an 800 number based on the geographic origination of the call, from a specific or any combination of NPA/NXX, NPA or LATA. (Level 3, App. 800, Sec. 2.5)

244. Section 2 of Appendix 800 of the interconnection agreements, such as Level 3', provides the terms and conditions for nondiscriminatory access to Ameritech's 800 Database. This provides the CLEC information required to determine the appropriate routing of an 800, 888, 877 or an 866 number. Ameritech offers three optional features with 800 Service: Designated 10-Digit Translation, Call Validation, and Call Handling and Destination. (Level 3, App. 800, Sec. 2.6.1-2.6.3)

245. The Designated 10-Digit Translation feature converts the 800 number into a designated 10-digit telephone number and returns this information to the sender of the query. (Level 3, App. 800, Sec. 2.6.4) (Tariff, Part 19, Sec. 10, Sh. 2, Para. 1.B.5.)

246. The Call Validation feature limits calls to an 800 number to calls originating only from an 800 Subscriber's customized service area. Calls originating outside the area are

screened and a recording is returned to the calling carrier. (Level 3, App. 800, Sec. 2.6.6)
(Tariff, Part 19, Sec. 10, Sh. 2, Para. 1.B.5.)

247.   The Call Handling and Destination feature allows routing of 800 calls based on one, or
any combination, of the following: time of day, day of week, percent allocation, and
specific 10-digit automatic number identification. (Level 3, App. 800, Sec. 2.6.5)
(Tariff, Part 19, Sec. 10, Sh. 2, Para. 1.B.5.)

248.   All of the above features are available to a CLEC and its customers in the same manner
as provided by Ameritech to its retail customers. When a CLEC operates its own
switching system, access to the database is obtained by using the SS7 Interconnection
Service. 47 C.F.R. § 51.319(e)(2).

249.   When a CLEC purchases unbundled switching elements from Ameritech, the access to
the 800 database is identical to that used by Ameritech in the same switch. 47 C.F.R.
§ 51.319(e)(2)(C).

AIN Call Related Database

250.   Advanced Intelligent Network ("AIN") is a network architecture that uses distributed
intelligence in centralized databases to control call processing and manage network
information, rather than performing those functions at every switch.

251.   Ameritech's Unbundled Access to Advanced Intelligent Network ("AIN") Databases is
provided on a nondiscriminatory basis and enables a CLEC that resells Ameritech
services to resell Ameritech's AIN-based telecommunications services. For these CLECs
Ameritech makes available existing AIN retail applications, as well as newly created
services that a CLEC creates via the Ameritech AIN Service Creation Environment
("SCE") service. Unbundled AIN Databases provides for the AIN functionality necessary

for the day-to-day ongoing call processing associated with a specific AIN application's

execution. This includes the SS7 transport and SCP processing of the query associated

with the specific service. (Level 3, General Terms and Conditions, Sec. 45.7.2 and App.

UNE, Sec. 12.1)

252. Ameritech provides CLECs access to Ameritech's Service Creation Environment

("SCE") to design, create, test and deploy AIN-based features, equivalent to the access it

provides to itself, providing that security arrangements can be made. CLEC requests to

use the Ameritech SCE is subject to request and review procedures and security

arrangements to be agreed upon by Ameritech and the CLEC. (Level 3, General Terms

and Conditions, Sec. 45.7.2)

253. When a CLEC uses Ameritech's Local Switching network element (other than through

resale) and requests Ameritech to provision such network element with a technically

feasible AIN trigger, Ameritech provides access to the appropriate AIN Call Related

Database for the purpose of a CLEC developed AIN feature developed on the SCE.

(Level 3, General Terms and Conditions, Sec. 45.7.2) (Tariff, Part 19, Sec. 13, Sh. 2,

Para. 1. B. 4)

254. When a CLEC uses its own local switch, Ameritech provides access to the appropriate

AIN Call Related Database for the purpose of invoking a CLEC-developed AIN feature

developed on the SCE. (Level 3, General Terms and Conditions, Sec. 45.7.2) (Tariff,

Part 19, Sec. 13, Sh. 2, Para. 1. B. 4).

255. Ameritech provides access to AIN Call Related databases in a nondiscriminatory and

competitively neutral manner. Any mediation, static or dynamic, only provides network

reliability, protection, security, and network management functions consistent with the

access service provided. Any network management controls found necessary to protect

the AIN SCP from an overload condition are applied based on non-discriminatory

guidelines and procedures either (1) resident in the Ameritech STP that serves the

appropriate AIN SCP or (2) initiated from Ameritech network elements manually. Such

management controls are applied to the specific problem source, wherever that source is,

including Ameritech. The controls are not applied to all services unless the source of the

problem cannot be identified.

256.   When requested by a CLEC, Ameritech provides specifications and information

reasonably necessary for the CLEC to utilize Ameritech's SCE as provided above.

257.   Through its SCP, Ameritech partitions and take reasonable steps to protect a CLEC's

service logic and data from unauthorized access, execution or other types of compromise,

where technically feasible.

LIDB, CNAM AND UNBUNDLED ACCESS TO OSMOP

258.   Ameritech meets the requirements of the Act by providing CLECs nondiscriminatory

unbundled access to the same Line Information Database ("LIDB") and Calling Name

("CNAM") Database used by Ameritech, and Ameritech's LIDB Service Management

System, known as the Operator Services Marketing Order Processor (OSMOP).

Ameritech no longer has its own LIDB, due to the fact the service platform has been

manufacturer-discontinued. Instead, Ameritech contracts with Southern New England

Telephone ("SNET") Diversified Group ("DG") to provide Ameritech with query access

to LIDB. Ameritech offers CLECs access to OSMOP to permit them to input, change and

maintain their data in Ameritech's CNAM Database and SNET DG's LIDB .[34]

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[34] CLECs were notified of the elimination of the Ameritech LIDB in Accessible Letters CLECAM00-147, dated

259.   LIDB is a database on which local exchange service providers store information about their end users' accounts. LIDB enables other carriers to determine at the time of call processing, whether the end user has decided in advance to accept alternately billed calls (i.e., collect, third number and calling card). (Level 3, Appendix LIDB Service, Sec. 3.1) (Tariff, Sec. 11, Sh. 1, Para 1. A., and Sh. 3, Para 1.B.8)

260.   LIDB is connected to an adjunct fraud monitoring system, managed by SBC Services, Inc. (Level 3, Appendix LIDB-AS, Sec. 3.1) (Tariff, Part 19, Sec. 11, Sh. 3, Para 1.B.7) Using this system, all accounts, including Ameritech's and CLECs', are monitored for fraud in the same manner and using the same criteria. If the possibility of fraud is detected on a CLEC account, SBC Services, Inc. personnel contact the CLEC so the CLEC may take whatever action it deems necessary to protect its end users from fraudulent activity. (Level 3, Appendix LIDB-AS, Sec. 4.8.1) (Level 3, General Terms and Conditions, Sec. 6.4)

261.   The unbundled access Ameritech provides to CLECs for queries to the SNET DG LIDB allows CLECs nondiscriminatory call-completion capabilities, as well as nondiscriminatory capabilities for entering and storing their own end-user customer information. As required by the FCC, "[q]uery and response access to [the LIDB] is intended to require the incumbent LEC only to provide access to its [LIDB] as is necessary to permit a competing provider's switch (including the use of unbundled switching) to access the call-related database functions supported by [the LIDB]."[35]

October 23, 2000 and CL#CAM01-123, dated April 27, 2001.

[35] First Report and Order, Implementation of the Local Competition Provisions in the Telecommunications Act of 1996: Interconnection Between Local Exchange Carriers and Commercial Mobile Radio Service Providers, 11 FCC Rcd 15499, 15741 n.1127 (1996) ("Local Competition Order").

CLECs have such access at parity with Ameritech. Resellers of Ameritech's retail

telecommunications services have precisely the same LIDB access as Ameritech provides

its own retail customers. Carriers using Ameritech's unbundled local switching,

including carriers using combinations of unbundled loops and switch ports, obtain access

to Ameritech's signaling network as part of the switching UNE. Thus, these UNE-based

CLECs also may query the SNET DG LIDB via the same switch and signaling network

in exactly the same manner, and over the same facilities, as Ameritech does for itself.

Finally, carriers that have their own local switching facilities have three options for

querying SNET DG's LIDB. First, the CLECs may use the same facilities in the same

manner as Ameritech, if they interconnect with Ameritech's SS7 signaling network, they

may bypass Ameritech's network and access the LIDB using a third party's SS7

signaling network that interconnects with Ameritech's SS7 signaling network, or they

may bypass Ameritech's SS7 signaling network and connect directly to the network of

SNET DG.

CNAM

262.   Caller ID With Name is a retail service that allows the terminating end user to view the

calling party's name before answering the call. The calling party's name is retrieved from

a CNAM database and delivered to the terminating end user on Caller ID customer

premises equipment. (Level 3, Appendix LIDB Service, Sec. 3.2)

263.   Ameritech provides all requesting CLECs nondiscriminatory access to Ameritech calling

name information. Resellers of Ameritech's retail telecommunications services have

precisely the same CNAM Database access as Ameritech provides its own retail

customers. Carriers using Ameritech's unbundled local switching, including carriers

using combinations of unbundled loops and switch ports, obtain access to Ameritech's signaling network as part of the switching UNE. Thus, these UNE-based CLECs also may query the CNAM Database via the same switch and signaling network in exactly the same manner, and over the same facilities, as Ameritech does for itself. Finally, carriers that have their own local switching facilities may also query Ameritech's CNAM Database using the same facilities and in the same manner as Ameritech if they interconnect with Ameritech's SS7 network, and if they use the same technology. This arrangement is described in more detail in the following section.

264. There are two means of providing access to CNAM databases. One is through an AIN query and the other is through a LIDB query. Ameritech currently supports both database platforms. AIN queries go to the AIN CNAM Database. LIDB queries for CNAM go to the LIDB Database. Ameritech is in the process of eliminating its LIDB. Ameritech has already eliminated the Validation use of its LIDB. The only traffic still hitting its LIDB platform is CNAM queries designed for a LIDB. In the fourth quarter of 2001, Ameritech plans to physically remove the platform from its network and all CNAM query traffic will be re-directed to an AIN CNAM database.

265. Ameritech's AIN-based CNAM Database can also accommodate Intelligent Network ("IN")-based query traffic. Beginning in the fourth quarter of 2001, Ameritech plans to use only the AIN CNAM Database platform to provide Ameritech's calling name information to all carriers, including Ameritech and any affiliates. Ameritech will support this change by making changes to the Calling Name Access Routing Guide ("CNARG"). These routing guide changes will advise CLECs of any needed global title translations that may need to occur in their network. This is the industry standard method of making global title changes.

266. Ameritech's obligation under Section 271(c)(2)(B)(x) is to provide the same

nondiscriminatory access to call-related databases and associated signaling as it provides

itself. CNAM query responses deliver calling name information in conjunction with the

calling party's telephone number as part of Caller ID With Name service. The

information contained in the CNAM database is available to CLEC end office switches,

on a query-by-query basis together with the associated signaling, just as that information

is available to Ameritech's end office switches.

OSMOP

267. While LIDB and CNAM Database are the sites data is queried from, Service

Management Systems (SMSs) are where data is created, modified, or updated.

268. Ameritech uses OSMOP to administer its LIDB data. Ameritech also uses OSMOP to

provide updates to its AIN CNAM Database. Since end user service information on

resale ordering is the same as Ameritech's retail end users, Ameritech maintains LIDB

and CNAM records for resellers' end users exactly the same as it does for its own end

users. (Level 3, App. LIDB-AS, Sec. 4.3.1.1)

269. Facilities-based CLECs have options for their data administration. CLECs using

Ameritech's ULS or UNE-P may administer their records by issuing a Local Service

Request (LSR). The LSR generates a service order, and is processed by OSMOP in

exactly the same manner as Ameritech's retail and resale accounts are processed. CLECs

purchasing ULS or UNE-P may also choose to administer their data in the same manner

as switch-based CLECs, which will be described next. To date, all ULS/UNE-P CLECs

in Ameritech have chosen to administer their data through service order processing.

270. Switch-based CLECs can administer their data directly through the same two electronic

interfaces used by Ameritech. The Service Order Entry interface permits a CLEC to send

LIDB and CNAM information directly from their own back-end systems through

Ameritech's remote access facility to OSMOP. Ameritech also provides CLECs with

access to a second interface, the Interactive Interface, which provides dial-up access to

OSMOP using a graphical interface that is equivalent to the interface used by

Ameritech's Database Administration Center ("DBAC") personnel.[36] The Interactive

Interface allows CLEC representatives to perform exactly the same data administration

tasks as Ameritech personnel. Carriers requesting access to these interfaces are provided

instructions to format and enter the information into OSMOP, which in turn feeds LIDB

and the CNAM Database. In addition, Ameritech provides the "OSMOP CLEC

Handbook," which shows field values and contains instructions on how to connect to

OSMOP. Ameritech also provides personnel to assist CLEC representatives with

accessing and entering CLEC records into OSMOP.

271.   The Service Order Entry Interface ("SOEI") provides CLECs precisely the "equivalent

interface" required by the FCC.[37] Just as Ameritech sends LIDB and CNAM information

directly to the OSMOP SMS, the CLEC can send LIDB and CNAM information directly

to the OSMOP SMS. All a CLEC needs to do to populate its LIDB and CNAM record

electronically is to configure its own systems to send the appropriate customer and billing

information to the OSMOP SMS, just as Ameritech has configured its systems to do this.

(Level 3, App. LIDB-As, Sec. 4.3.1)

272.   If a facility-based CLEC requests manual intervention, OSMOP will be used to transmit

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[36] Effective July 9, 2001, Ameritech DBAC functions were relocated to the Pacific Bell Telephone Company DBAC located in San Francisco, California. CLECs were notified of new contact numbers in Accessible Letter CLECAM01-151, dated May 18, 2001.

the CNAM update to the AIN-based SMS. As CLECs connect directly to OSMOP, OSMOP will transmit those updates directly to the AIN-based SMS.

273. Resellers and CLECs providing service over UNE-P may provide their CNAM updates to Ameritech via a Local Service Request ("LSR"). The LSR generates a service order, which is processed by OSMOP. OSMOP then creates the LIDB and CNAM Database update, and sends the LIDB update directly to LIDB. For the CNAM database, OSMOP sends the update to the AIN SMS, which then sends the update to the AIN platform. This is the same process that is used for Ameritech retail services.

274. All data maintained in each of the above databases is maintained in accordance with the confidentiality requirements of the Act. (Level 3, App. LIDB Service, Sec. 5.3, &, App. 800, Sec. 3.12)

275. Ameritech responds to requests for additional arrangements for access to call-related databases and associated signaling facilities through the BFR process.

276. In summary, as required by 47 C.F.R. § 51.319(e), Ameritech provides unbundled, nondiscriminatory access to its signaling networks; to its call-related databases used in the signaling networks for billing and collection or the transmission, routing or other provisioning of telecommunications services; and to the associated SMS for each database.

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[37] Local Competition Order, 11 FCC Rcd at 15746, ¶ 494.

Each database is accessed through Ameritech's STPs by a requesting CLEC in the same manner and via the same signaling links that are used by Ameritech.

VII. CHECKLIST ITEM (xi): NUMBER PORTABILITY

277.   Checklist item (xi) requires that:

> *(xi) Until the date by which the Commission issues regulations pursuant to section 251 to require number portability, interim telecommunications number portability through remote call forwarding, direct inward dialing trunks, or other comparable arrangements, with as little impairment of functioning, quality, reliability, and convenience as possible. After that date, full compliance with such regulations. 47 U.S.C.§ 271 (c)(2)(B)(xi)*

278.   Ameritech is in compliance with this checklist item.

279.   Ameritech provides Long Term Number Portability ("LNP") in conformance with FCC rules, as explained in the Mondon Affidavit. (Level 3, App. NP, Sec. 3) Since all Ameritech central office switches are equipped for LNP, no Interim Number Portability services are offered. (Level 3, App. NP, Sec. 2.1)

VIII. CHECKLIST ITEM (xii): LOCAL DIALING PARITY

280.   Checklist item (xii) requires Ameritech to provide:

> (xii) Nondiscriminatory access to such services or information as are necessary to allow the requesting carrier to implement local dialing parity in accordance with the requirements of section 251(b)(3). 47 U.S.C. § 271(c)(2)(B)(xii).

281.   Section 251(b)(3) provides the following requirements:

> *Dialing Parity – The duty to provide dialing parity to competing providers of telephone exchange service and telephone toll service, and the duty to permit all such providers to have nondiscriminatory access to telephone numbers,*

operator services, directory assistance, and directory listing, with no

unreasonable dialing delays.

282.   Ameritech is in compliance with this checklist item.

283.   The FCC Rules (§ 51.207) specify that local dialing parity means that telephone

exchange service customers within a local calling area may dial the same number of

digits to make a local telephone call, regardless of the identity of the customer's or the

called party's carrier. Ameritech's interconnection arrangements fully meet this

requirement. The FCC's Second Report and Order, ¶ 71, stated that local dialing parity is

also achieved through the implementation of the interconnection, number portability and

nondiscriminatory access to telephone number requirements of Section 251 of the Act.

As described earlier, Ameritech has implemented each of these in accordance with the

Act and the FCC Rule.

284.   Ameritech's interconnection arrangements do not require any CLEC to use access codes

or additional digits to complete local calls to Ameritech customers. Neither are

Ameritech customers required to dial any access codes or additional digits to complete

local calls to the customers of any CLEC. The interconnection of Ameritech networks

and the network of CLECs are seamless from a customer perspective. Since the CLEC

central office switches are connected to the trunk side of the Ameritech tandem or central

office switches in the same manner as Ameritech and other local exchange companies,

there are no differences in dialing requirements or any built-in delays for CLEC

customers.

IX. NONDISCRIMINATORY TREATMENT OF CLECs and IXCs

285.   In the following paragraphs, I describe Ameritech's public switched network that is used

to provide interconnection and unbundled network elements to CLECs and to Ameritech

Long Distance and other IXCs in Illinois. I also show that, from a technical perspective,

Ameritech cannot reasonably engage in a concerted plan to discriminate in favor of itself

or its affiliate, or against other service providers. Furthermore, if Ameritech did attempt

to engage in such discrimination, that discrimination would be easily detected.

286. Ameritech is not able to discriminate in favor of itself or its long distance affiliate,

Ameritech Long Distance, or against CLECs or IXCs, because Ameritech provides the

CLECs and IXCs with exchange and interexchange access, network interconnection,

collocation, unbundled network elements, and resold services using the existing network

facilities, systems, and databases used to serve Ameritech's retail customers. Where

applicable, the same service parameters, intervals, standards, procedures, and practices

that Ameritech uses to serve its retail customers are also used to provide services to

CLECs and IXCs, including Ameritech Long Distance.

287. Discrimination in provisioning these services and network elements is not practical

because they are provided utilizing the facilities, switches, and systems that were

specifically designed to automatically provide nondiscriminatory service. Ameritech's

network is not currently designed (and no changes are planned) to identify or segregate

traffic or services of individual carriers. All types of traffic, such as local, intraLATA

toll, and interLATA, are carried on trunks and loops intermingled with traffic from many

carriers, and users are switched by local and tandem switches pursuant to standard

software and routing tables. The process of identifying and interfering with the traffic of

various CLECs and IXCs would be a major undertaking that would require the assistance

of several unaffiliated equipment manufacturers and would therefore be easily detectable

and, indeed, virtually public knowledge.

288.   To be successful, any such discrimination plan would require a significant

reconfiguration of Ameritech's network and related systems, including modifying or

replacing a substantial portion of the generic software that drives its switches and

systems. Such software changes would require the involvement of non-affiliated

switching equipment manufacturers. Any such scheme would also require the

coordinated participation of hundreds of Ameritech technicians. This kind of concerted

discrimination is not only impractical, but also, assuming for the sake of argument it was

attempted, it would be obvious.

289.   Ameritech's telecommunications network is a multi-purpose, mixed-use network. The

network is capable of transmitting voice, data, and video information on a local and

intrastate basis, and for intrastate and interstate access to long-distance carriers. The

network is composed of three basic building blocks. These are the loop facilities, the

central switching offices, and the interoffice trunking facilities. The interoffice trunk

facilities include the interoffice signaling system.
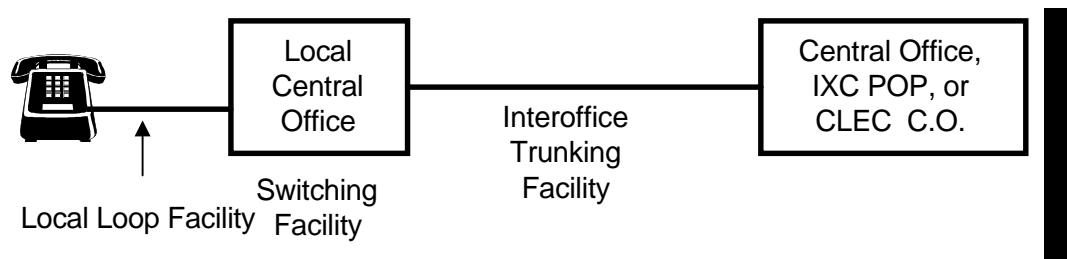
290.   The loop facilities (or outside plant equipment) are the communications paths that

connect a customer's location to a central switching office or to another transmission

facility. The loop is typically a pair of copper wires, but as discussed later, it may also be

a pair of glass fiber lightguides.

291.   The central switching office, or CO, is the hub of the loop facilities for a geographical

area known as a wire center. The central office contains the switching machine that connects one customer's loop facilities to another, or a customer's loop facilities to a trunk to another central office. The central office also contains the distributing frame that allows any loop facility in the wire center to be associated with any telephone number available in the switching machine. In addition, the central office provides the power to operate the telephones that are connected to the loop facilities.

292. The interoffice trunking facilities are the communications paths between the switching machines. In a town served by a single switching machine, all trunks are usually used for access to long-distance carriers or for operator services. In large cities, there are local trunks that are used to connect customers to each other through different central offices in the city. Trunking facilities may be simple copper wires, but they are most often electronic carrier systems connected to copper wires or fiber optic transmission systems. The signaling information for the trunking facilities may be transmitted between switches using either MF or SS7 protocol signaling.

293. Collectively, the above elements make up Ameritech's public switched network and are used to provide virtually all of the company's telecommunications services to consumers and other carriers. I will discuss the configuration of each of these components separately and show that competitively significant discrimination in each component is not feasible to implement and, even if it were feasible, it would be easy to detect. Since discrimination in each component of the network is not feasible, discrimination in the combined network is also infeasible and, if attempted, would be easily detected.

Switching Systems

294. Ameritech's network in Illinois uses analog electronic switching systems and digital

switching systems. These switches are manufactured and programmed by Lucent
(formerly AT&T), Nortel, and Siemens. None of these companies are affiliates of
Ameritech.

295. These computer-controlled switches are designed to operate under stored program control
using software provided by the switch manufacturers. This is to say, when a customer
dials a call, the call is handled by the switch under control of a software program that
handles all like traffic in the same manner. For example, when a customer picks up
his/her handset, the switch knows the customer is initiating a request for dial tone. The
switch responds by causing the dial tone to be applied and prepares to receive digits.
This is accomplished by a software routine that regularly scans for off-hook conditions.
These software routines are designed by the manufacturers to handle all like traffic in a
similar manner and to provide all comparable features and capabilities of the switch on a
generic basis. They cannot easily be modified to differentiate calls based on the identity
of the CLEC or IXC serving the customer. Any attempt by Ameritech to modify this
core software would violate the manufacturer's warranty and would be detectable by the
switch vendor during routine switch servicing or during the next software upgrade. Such
modifications could also jeopardize overall network reliability.

296. CLECs may install their own switching systems and thereby preclude any possibility of
discrimination by Ameritech. Alternatively, CLEC customers may be connected to the
Ameritech central office switch at an unbundled switch port element. An unbundled
switching port consists of the central office switch hardware (card) and software required
to permit a CLEC customer to access the Ameritech switch in order to send or receive
information over the Ameritech switched network. Ports provide access to the basic
functionality of the switching components of Ameritech's network, including signaling,

digit reception, translation, routing, and call supervision. Dial tone, telephone numbers, and ringing signaling are associated with the ports. Multiple switch ports are physically located on a single line card and are assigned to both Ameritech and CLEC customers in the same manner, which is designed to spread the load evenly across the switch and to provide the most efficient use of frame assignments for cross connections to loop facilities. It is not possible to deteriorate the service of one customer without affecting the others.

297. The unbundled Local Switching element provides the originating switching in the end office where the switch port is located. It provides call processing and switching to the proper line or trunk port within the switch. A call that originates on a line port may be completed to another line port on the same switch, to a trunk port for transport to another central office, or to an Ameritech tandem switch. It also includes the use of all features and functions available on the switch.

298. A tandem switch is a switch that is designed and programmed to connect interoffice trunks to other interoffice trunks. Interoffice trunks from the individual end offices are connected to the tandem switch to form a network connecting all offices. In this case, the tandem being discussed is the local tandem used in exchanges with more than one local switching office. In the large exchanges there is a separate switch that is used for tandem switching. In smaller exchanges, one of the local central offices may be used for tandem switching for interconnection purposes.

299. The generic software that controls these switches is developed and provided by the switch manufacturer and is proprietary to and controlled by that manufacturer. The software is designed to provide equal access and nondiscriminatory service to all traffic

as required by existing legal and regulatory requirements. For example, AT&T (now Lucent Technologies) and Nortel manufactured the switches that serve the majority of Ameritech's Illinois customers. Neither Lucent nor Nortel provide, within their generic software, the ability for Ameritech or any other LEC to discriminate in the routing of local or tandem traffic or in the provision of any central office feature or service. To undertake such discrimination, Ameritech would have to obtain the assistance of Lucent and Nortel in an extensive re-writing of their switch software. In addition, due to the multiplicity of switch vendors in Illinois, Siemens would have to be included in the effort as well.

300. The generic switch software also controls collection of all of the digits and routing of the calls. The manufacturers establish the software used for routing traffic in the switch during switch design. Again, any attempt by Ameritech to modify the fundamental switch software to handle traffic of certain carriers differently could be detected by the switch manufacturers during software reloads.

301. Since Ameritech's switches do not currently have the technical capability to identify, and treat differently, exchange access, toll, or local traffic of specific providers, Ameritech cannot reasonably discriminate in the provision of local or tandem switching functions regarding that traffic. For the same reasons, Ameritech is not technically able to discriminate regarding unbundled local or tandem switching, switching services provided in support of resold local exchange services and vertical features, and other capabilities of its local and tandem switches, such as dial tone and telephone numbers.

302. Even if such differentiation among carriers were practicable, which it is not, any resulting degradation or enhancement would be detected, not only by the switch manufacturer but

also by the interconnecting carriers themselves. Carriers routinely deploy automatic test

equipment and performance monitoring devices to provide general quality assurance

functions. Ameritech provides test lines that are used by the CLECs and the IXCs to test

individual lines and trunks at any time without the aid of Ameritech technicians. As is

discussed below, the interexchange carriers have developed systems for this very

purpose. Any attempt to discriminate would be detected during such routine testing.

Interoffice Trunking Facilities

303.   The interoffice trunking facilities are the communications paths between switching

machines. In a town served by a single switching machine, with no extended area calling

arrangements, all of the trunks are used for long-distance calls. In large metropolitan

areas, there are local trunks used to connect customers served by the different central

offices in the local calling scope. Trunking facilities may be simple copper wires,

electronic carrier systems, or fiber optic lightwave guides. Associated with the trunking

is a signaling system. This may be an "in-band" signaling system, such as

Multifrequency ("MF") signaling, where the signals are transmitted on the same path that

is used for transmitting the voice or data communications, or an "out-of-band" signaling

system such as Signaling System 7 ("SS7").

304.   Ameritech makes available capacity on all types of interoffice transmission facilities.

These include analog circuits on copper cables, digital circuits on copper cables using T-

carrier, and digital circuits on fiber optic cables. CLECs may order shared interoffice

transport or dedicated interoffice transport.

305.   When a CLEC chooses to use shared interoffice transport, the CLEC's traffic is

intermixed with the interoffice traffic of Ameritech and other carriers, including

Ameritech Long Distance and other IXCs; in some cases, the traffic is intermixed on the same trunk groups. If service is degraded for one carrier, it is degraded for all. Likewise, if there is blocking between two offices, traffic for all carriers is blocked. Ameritech maintains performance data on trunk group performance that can be compared to what the interconnecting carrier is experiencing on its traffic. As discussed below, Ameritech has been providing shared interoffice transport service to IXCs for many years, with positive results.

306. Therefore, it would be exceptionally difficult, if not impossible, to design the interoffice transmission facilities used by Ameritech to connect its end office switches to each other, and to the local tandem, in such a manner as to degrade only calls of unaffiliated CLECs or IXCs or -- to improve the quality of only its own customer's calls or those of Ameritech Long Distance customers. The transmission path that carries an Ameritech call at any one time may carry a call for a CLEC the next minute. There is no feature of these transmission facilities to identify the company serving a customer on an individual call.

307. Dedicated transport using Ameritech facilities to connect CLEC switches could possibly be designed to offer a lesser grade of transmission quality than is provided for Ameritech's own trunk groups. However, these facilities are the easiest for the CLEC to test and monitor the quality of the transmission, because they are connected to the CLEC switch and test equipment. It is unlikely that any such discrimination would go unnoticed. The IXCs have dedicated trunks to many offices today and continually test and analyze the service they are receiving.

Local Distribution Facilities

308.   Ameritech has established one or more wire centers in each of the exchanges it serves in

Illinois. Each wire center is a defined geographic area and is served by a central office.

Within a central office, a main distribution frame ("MDF") is installed to cross-connect

the local switch to local distribution facilities or loops that connect end user customers to

the network.

309.   As described above, local loops are normally concentrated on large cables in the

distribution and feeder systems. Cable pairs used to serve one end user are freely

intermixed with cable pairs used to serve another. The same cable pair may be used one

day to serve a retail customer of Ameritech and a day later used to provide an unbundled

loop to a CLEC, if that customer changes its subscription to the CLEC. Alternately, the

same pair may be used to allow the CLEC to resell Ameritech's services. Further, the

same cable pair is used to carry any traffic originating from or terminating to the end-user

access line involved, regardless of the carrier involved. At any point in time a cable pair

may be carrying a local call through Ameritech's network or an interLATA call to

Ameritech Long Distance, WCOM, AT&T, or some other long-distance carrier. As is

the case with interoffice facilities, there is no ability for the local loop to handle a

competitor's call differently than a call of an Ameritech customer.

310.   Ameritech serves all CLECs using the same local distribution systems it uses to provide

service to its retail customers. Thus, Ameritech co-mingles local loop facilities, using the

same distribution and feeder systems that its competitors use. Like those of its

competitors, Ameritech's loops are provided through cables and equipment connected to

other cables capable of handling large numbers of loops on a single cable and are not

separately identified. Unbundled local loops and resale services are provided on the same

facilities Ameritech uses to serve its own customers. Indeed, often there are only a few

pairs of wires that can be used to serve an individual customer location. These wires

must be assigned to the carrier from which the customer orders service. However, these

wires are co-mingled with those from other customer locations as the cables increase in

size on their way to the central office.

311. When the CLEC orders unbundled local loops for connection to its own switch, the

CLEC switch is capable of testing the loop on a regular basis. Since Ameritech has no

active electronics equipment on most of the loops, it would be impossible for Ameritech

to randomly vary the service quality of the loop. Thus, it would be a simple process for

the CLEC to determine the source of any transmission problems. If these loops do not

match the standards of the loops used by Ameritech, it would be apparent immediately.

312. Not only does Ameritech use the existing loop and feeder distribution system to serve its

retail customers and unaffiliated CLECs, but also the specific loops in those systems are

assigned by automated systems that do not recognize the identity of the requesting carrier

or customer. These systems are Facility Assignment and Control System ("FACS"),

Service Order Analysis and Control ("SOAC"), Loop Facility Assignment and Control

System ("LFACS"), and Switch Systems Network Administration/Frame Operations

Management System ("SWITCH/FOMS") These systems automatically assign loop

facilities on a nondiscriminatory basis, such as the time of receipt of the request and the

transmission characteristics needed to provide the requested service.

313. The systems that assign and repair loops are automated, interconnected, and interrelated.

Once an order has entered these systems, it is automatically handed off from one system

to the other whenever possible. It is virtually impossible and impractical to attempt any

type of discrimination or manipulation of the assignment process. In addition, any attempt to alter specific parts of the process typically necessitates substantial changes in other portions of that process and/or other downstream systems.

314. It is not technically feasible today for Ameritech to segregate the loop facilities provided to unaffiliated CLECs without changing the existing operations support systems for these facilities. Of course, any such system changes would be obvious. Like switches, many of these operations support systems are purchased from third parties, which would have to be requested to modify their existing software in order to discriminate. Thus, software modifications of the type required to practice any type of discrimination would be time consuming, costly, and require the cooperation of multiple vendors. Moreover, given the testing capabilities of competitors' switches, any below-standard performance would quickly be detected and generate a repair request.

315. The only portion of the loop that is isolated to a single customer is the drop wire. This is usually a small copper cable located at the customer's premises. Since there are no active electrical components, there is no reasonable way to degrade the level of service on the drop wire (such as placing a large resistor or cutting the line) that would not be readily detectable to the customer and the CLEC.

316. Thus, the only possible way to discriminate regarding local distribution facilities would be to segregate in some way the loop facilities used by Ameritech or its competitors and selectively enhance or degrade them. This would not only be impractical and very expensive, it also would be obvious and easy to detect. Moreover, competitors frequently order "as is" in the resale mode or reuse, via coordinated conversion, local loop facilities currently used by Ameritech to provide its own services to the end user, making

Ameritech's ability to discriminate even more remote.

Interoffice Signaling Systems

317. Signaling System 7 is the primary signaling system used in the Ameritech network. It is described in section VI of this affidavit.

318. The primary elements of the SS7 network are the Signal Transfer Point ("STP"), the signaling links and the Service Switching Point ("SSP"). The STP is a packet switching device that provides signaling distribution for the network. A central office or tandem switching machine that is equipped to process SS7 signals is a SSP. The transmission paths that connect SSPs to STPs and STPs to other STPs are called signaling links.

319. Ameritech provides access to its signaling network to interexchange carriers and other local exchange companies today, and provides such access to CLECs under the same terms and conditions. The SS7 signaling network is a separate, highly automated network that utilizes shared facilities, generic software, and fast packet switches to perform call-set-up signaling and to route administrative messages on the same basis for all traffic, regardless of the source, destination, or carrier involved. Moreover, the same switches, STPs cables, signaling protocols, and routing tables that Ameritech uses for itself is used to provide signaling for requesting CLECs.

320. Since CLECs use the same signaling network on the same basis as Ameritech, it is not practical for Ameritech to identify separately, or handle differently, comparable traffic of its own or that of CLECs. Further, any attempt to discriminate on a competitively significant scale would require a major reconfiguration of Ameritech's SS7 network, which would be easily detected.

321. Ameritech has been providing both direct interoffice transport and shared interoffice transport services and tandem switching service to interexchange carriers since 1984. During this time, both Ameritech and the IXCs have developed methods of monitoring the performance of Ameritech in providing and maintaining installed services. For example, AT&T has a very detailed performance evaluation system that it uses with Ameritech. This system measures such items as Access Network Reliability, maintenance of test lines, installation of test lines, SS7 network performance, percent of trunk groups exceeding AT&T grade of service, due dates not met, and many other measures of interoffice transport performance.

322. Ameritech's access tariffs incorporate the specifications for transmission quality for access services provided to IXCs. For example, Tariff FCC No. 2, § 6.1.6 lists the acceptance tests that may be performed cooperatively between Ameritech and an IXC at the time various services are installed. These include tests of transmission loss, C-notched noise, C-message noise, 3-tone slope, direct current continuity, and operational signaling. Other tests may be included for particular services. With the results of these initial baseline tests, a carrier would be able to detect any degradation of the facility after it was installed.

323. The most common type of access connection is a Feature Group-D trunk. The transmission specifications and testing capabilities of this type of service are detailed in § 6.2.4 (C) and § 6.2.4 (D) of Tariff FCC No. 2. Included in the testing capabilities, is seven-digit access to a balance (100 type) test line, milliwatt (102 type) test line, nonsynchronous or synchronous test line, automatic transmission measuring (105 type) test line, data transmission (107 type) test line, loop around test line, short circuit test line, and open circuit test line. Additionally, in-service tests may be scheduled any time

after the installation for verification of circuit performance. All of these access test facilities continue to be available to Ameritech Long Distance and other IXCs. This enables any carrier to detect service problems on the facilities being obtained from Ameritech.

324. FCC Tariff No. 2, § 6.6 provides specific obligations of Ameritech concerning the design of Switched Access Services. This section includes a provision that requires Ameritech to provide service performance data on end-to-end service and trunk group data, such as the total load offered. Section 6.6.7 (E)(1) also includes the design blocking criteria to be applied to each type of service ordered by the IXC. These services continue to be available to IXCs and Ameritech Long Distance.

325. In addition, many carriers have established monitoring projects to establish their own required levels of service. Ameritech has cooperated in these projects to maintain the desired levels of service. As discussed above, AT&T has a detailed monitoring process. This plan covers all phases of Ameritech's operations as they relate to the provision of switched and special access services to AT&T. Any change in the level of service being provided to it by Ameritech after the start of operations of Ameritech Long Distance would be immediately detected.

326. When a CLEC orders the various unbundled network elements to provide exchange access (or other) services, Ameritech loses control of the facilities used to provide most of the elements. Because of this, Ameritech also loses the ability to affect the quality of those elements. For instance, most unbundled local loops that are available to be connected to a CLEC switch have no active electronic elements provided by Ameritech. These elements are simple copper wires. Ameritech has no ability to vary the quality of

these lines in such a way that it would not be easily detectable by the CLEC. Dedicated

transport facilities are provided over the same facilities used to provide service to

Ameritech, its customers, and the IXCs. Again, there is no way to cause undetectable

problems on these facilities without also degrading the service provided to Ameritech

customers. The local switching element and the tandem switching elements are provided

by the same switches used to provide service to Ameritech customers. The SS7 signaling

network elements are the most sensitive portions of the network and are under constant

surveillance. It would be impossible to degrade the service to one or more CLECs

without detection. In summary, there is no opportunity for discrimination against the

IXCs or CLECs, or in favor of Ameritech and its affiliate Ameritech Long Distance.

327.   This concludes my affidavit.

DRAFT

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Executed on _____, 2001.

_____
William C. Deere
Consultant

STATE OF TEXAS
COUNTY OF TARRANT

Subscribed and sworn to before me
this _____ day of _____, 2001.

_____
Notary Public